

Your written comments on a project under the Fast Track Approvals Act 2024

Project name	Waitiri Project
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Before the due date, for assistance on how to respond or about this template or with using the portal, please email contact@fasttrack.govt.nz or phone 0800 FASTRK (0800 327 875).

All sections of this form with an asterisk (*) must be completed.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Otago Regional Council		
*First name	Joanna		
*Last name	Gilroy		
Postal address	180 High Street, Dunedin 9054		
*Contact phone number	s9(2)(a)	Alternative	0800 474 082
*Email	s9(2)(a)		

2. Please provide your comments on this application
If you need more space, please attach additional pages. Please include your name, page numbers and the project name on the additional pages. 1. Competing applications Otago Regional Council (ORC) confirms that, based on current available information, there are no applications that have been lodged with the Council that would be a competing application or applications if a substantive application for the project were lodged. 2. Existing resource consents where sections 124C(1)(c) or 165ZI of the Resource Management Act 1991 may apply The referral application generally identifies potential water sources being the Nevis River and deep groundwater, with a total daily demand of 2,600 cubic metres. However, without confirmation of the specific water source and rate or volume of water required, ORC is unable to confirm whether sections 124C(1)(c) or 165ZI of the Resource Management Act 1991 could apply. However, ORC notes that the applicant has engaged constructively with Council during the pre-application process and has indicated that further engagement with ORC hydrology staff will occur

as the proposal is developed. ORC expects this process will assist in identifying water supply options that avoid allocation conflicts where practicable.

3. Significant adverse effects

ORC provided comprehensive pre-application advice on a draft version of the referral application. That advice addressed a range of matters relevant to ORC's statutory responsibilities, including hydrology, freshwater ecology, wastewater servicing, transport, natural hazards and other regional council functions. A copy of that advice is attached as Appendix A.

Based on the referral application, ORC considers the proposal has the potential to generate adverse effects across a range of environmental matters which will need to be addressed at the substantive application stage, including:

- water quantity and allocation;
- wastewater and stormwater management;
- natural inland wetlands;
- indigenous biodiversity;
- natural hazards; and
- cumulative effects associated with the scale and staging of the development.

For the proposed private water, wastewater and stormwater schemes, the substantive application should demonstrate how these services will be integrated with the overall development and how their long-term operation and maintenance will ensure reliable service delivery and appropriate environmental outcomes will be achieved over the lifetime of the development.

4. Alignment with the Regional Policy Statement, Regional Plan and other relevant strategies

Otago Regional Policy Statement

The referral application has not included an assessment against the proposed Otago Regional Policy Statement 2021 (ORPS 2021). ORC notes that the proposed ORPS 2021 became operative on 9 July 2026 and consider that the substantive application should include a comprehensive assessment against the operative ORPS 2021.

Based on the information currently available, ORC considers particular attention should be given to:

- the relevant ORPS 2021 definitions, including whether the solar farm and private servicing infrastructure fall within the definitions of “infrastructure” or “regionally significant infrastructure”. This will determine which objectives and policies apply to those components of the proposal;

- urban form and development, particularly UFD-P4, given the proposal would establish urban-scale development outside an identified urban area or growth area;
- commercial activities under UFD-P5, in relation to the proposed village precinct and associated community, recreational, cultural and visitor activities;
- infrastructure and energy provisions, including the EIT-INF and EIT-EN chapters, with particular attention to infrastructure integration, long-term servicing, resilience, reverse sensitivity and protection of the National Grid;
- freshwater matters, including proposed water takes, wastewater and stormwater discharges, natural inland wetlands, streams, Te Mana o te Wai, natural character and consistency with the Water Conservation (Kawarau) Order 1997;
- rural land use matters under LF-LS-P25 and LF-LS-P26, including the effects of rural living and rural lifestyle development on primary production, fragmentation of rural land, reverse sensitivity, the suitability of the land for rural lifestyle development, and cumulative servicing effects associated with water, wastewater and stormwater;
- land and soil matters, including soil values, contaminated land where relevant, and construction dust;
- landscape effects, particularly the protection of Outstanding Natural Landscapes and Features under the NFL provisions;
- natural hazards, including how the design will achieve the risk-based natural hazards requirements of the ORPS 2021, including the avoidance of significant natural hazard risks and the management of tolerable natural hazard risks;
- wāhi tūpuna, mana whenua and Kawarau River statutory acknowledgement matters, including the relevant HCV-WT and MW provisions;
- historic heritage, including recorded archaeological sites and listed heritage features; and
- ecological values, including natural inland wetlands, indigenous biodiversity, fauna management, restoration and revegetation, and the effects management hierarchy.

ORC notes that the scale, location and nature of the proposal raise a broad range of regional policy matters that will require detailed consideration through any substantive application. In particular, ORC notes that Policies UFD-P4 and LF-LS-P25/LF-LS-P26 may warrant careful consideration, depending on the final form of the proposal and how it is assessed against the operative planning framework.

Regional Plans

Insert Fast-track logo

Regarding the referral application's alignment with the relevant Regional Plans, as set out in the pre-application advice attached as Appendix A, there are a number of regional consenting matters that may need to be addressed through the substantive application.

ORC generally agrees with the applicant's identification of potential consents needed under the Regional Plan: Water for Otago for wastewater discharge, surface and groundwater takes, bore construction, and residential earthworks. However, further consents may also be required depending on the final design, including for works in river or stream beds, stormwater discharges, additional earthworks, activities within or near natural inland wetlands, and any ancillary water, discharge or land use matters.

The substantive application should demonstrate how the proposal aligns with the relevant regional planning framework, including by confirming the consents required, assessing water availability and allocation, delineating and assessing wetlands and freshwater values, and providing detailed technical assessments for stormwater, wastewater, earthworks, hydrology, freshwater ecology and any contaminated land risks.

While these matters do not necessarily indicate any fundamental inconsistency with the relevant Regional Plans, they show that the substantive application will need to demonstrate how the proposal aligns with the applicable regional planning framework.

5. Ineligible activities

Based on the information currently available, ORC has not identified any aspect of the proposal that appears to constitute an ineligible activity under section 5 of the Act.

6. Reasons to decline referral

Based on the information currently available, ORC has not identified any matter that clearly indicates the Minister should decline the referral application under section 21(5) of the Act.

ORC considers the proposal raises a number of matters that will require detailed assessment during the substantive application process. These matters are likely capable of being addressed through further design development and technical assessment through the substantive fast-track approvals process.

Note: All comments will be made available to the public and the applicant when the Ministry for the Environment proactively releases advice provided to the Minister for the Environment.

14 May 2026

RM26.152

Jo Fyfe
Campbell Brown Planning
Email: s9(2)(a)

Dear Jo,

Waitiri Developments (Oaks Living Limited) – Fast-track Referral Application

Pre-application consultation - Response from Otago Regional Council

Thank you for your request for pre-application advice for Waitiri Developments on behalf of Oaks Living Limited. Thank you also for agreeing to a pre-application process, which allows us to fully assess your proposal and provide guidance to help you prepare an application.

We acknowledge that consultation with Otago Regional Council (**ORC**) commenced prior to 31 March 2026. Accordingly, the formal notice requirements under section 11 of the Fast-track Approvals Act 2024 (FTAA) do not apply in this instance.

We also confirm that we have had the opportunity to review and comment on the pre-application material and draft referral application documents provided by you, the applicant, as part of the pre-application consultation process.

We have appreciated the applicant's responsiveness to feedback provided to date, including updates and refinements made to draft reports and supporting material following discussions with ORC staff. We appreciate the collaborative approach that has been taken through the early stages of the process and the applicant's willingness to continue engagement as the proposal progresses.

The advice provided in this letter is based on the following information provided by the applicant:

- Request for pre-application advice made by Oaks Living Limited, dated 19 March 2026;
- Waitiri Project: Fast-track Application – Preliminary Ecological Assessment, dated 8 April 2026;
- Preliminary Geotechnical Hazards Assessment - Waitiri Development, dated April 2026;
- Waitiri Development: Landscape Strategy Oaks Living Ltd Fast-track Approvals Act Application, dated 2 April 2026;
- Transport Memo (Fast Track Action (2024) Referral for Waitiri Development Referral, dated 20 April 2026;
- Planning Overview prepared by Campbell Brown Planning Limited; and

- Fast Track Approval – Civil Report: Oaks Property, The Station @ Waititri, Gibbston Valley, Queenstown, dated 24 April 2026.

Having reviewed the preliminary application material and plans provided, ORC has identified the following relevant issues, planning requirements, and potential environmental effects that the applicant may wish to consider as the proposal progresses. Given the referral application and supporting material are prepared at a relatively high level, ORC's comments are similarly high level in nature and are without prejudice to any future position ORC may take in relation to any substantive application, approval, or detailed assessment of effects.

Potential approvals required from the ORC under the Fast Track Approvals Act 2024

This advice provides a preliminary overview of the likely approvals associated with the proposed residential development and subdivision activities across the six Gibbston Valley development areas that are within the scope of ORC's role and functions. The comments below are based on the information provided to date and are intended to assist with identifying the likely approvals framework, key rule triggers, and technical matters requiring further investigation.

Given the proposal remains at a preliminary stage, this advice is necessarily high level and without prejudice to any future position the Otago Regional Council may take in relation to any formal application, referral process, substantive approval, or detailed assessment of environmental effects.

Based on the information provided to date, the proposal is likely to require a range of approvals that would otherwise be required from ORC as resource consents under the Resource Management Act 1991. In particular, the proposal is likely to trigger provisions under:

- Otago Regional Plan: Water for Otago (RPW);
- Regional Plan: Waste for Otago (RPWa);
- Regional Plan: Air for Otago (RPA);
- Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F);
- Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES-CS); and
- Resource Management Act 1991 (RMA).

Depending on the final design, servicing arrangements, and staging of the proposal, additional regional approval requirements may also arise.

Likely approvals required

The applicant has identified the following approvals as potentially applicable to the proposal:

- a discretionary activity discharge permit under Rule 12.A.2 of the RPW for the discharge of treated human sewage to land which may exceed the permitted activity threshold of 2,000 litres per day under Rule 12.A.1.4;
- a restricted discretionary activity water permit under Rule 12.1.4.6 of the RPW for a surface water take from the Nevis River, being a catchment not listed within Schedule 2A of the RPW;

- a discretionary activity water permit under Rule 12.2.4.1(i) of the RPW for the taking of groundwater through bores where the volume exceeds permitted activity thresholds;
- a controlled activity land use consent under Rule 14.1.1 of the RPW for the excavation, drilling, or disturbance of land for the purpose of creating bores; and
- a restricted discretionary activity land use consent and discharge permit under Rule 14.5.2 of the RPW for earthworks associated with residential development.

Based on the information currently available, ORC generally agrees that these approvals are likely to be required.

In addition to the approvals identified by the applicant, the proposal may also require further approvals depending on the final design, extent of works, servicing arrangements, and staging of development. These may include:

- land use consents associated with works within the beds of rivers and streams under Chapter 13 of the RPW, including structures, crossings, culverts, outfalls, intakes, diversions, bank works, restoration activities, and associated infrastructure;
- discharge permits for the discharge of stormwater under Chapter 12 of the RPW;
- additional land use consents and discharge permits associated with earthworks and land disturbance activities under Rules 14.5.1.1 and 14.5.2.1 of the RPW where permitted activity standards cannot be achieved;
- resource consents associated with activities within or adjacent to natural inland wetlands, including activities regulated under the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F); and
- any ancillary land use consents, discharge permits, or water permits that may be required depending on the final design and staging of the proposal.

The referral application material notes that streams are present on the Eastburn, Glenlee-Glenroy, Riverside, and Drystone blocks, and that natural wetlands are present on the Eastburn block, with potential wetland areas identified on the Waitiri block. ORC notes the applicant's intention to further investigate and confirm the extent and status of these wetland areas prior to lodging any substantive applications.

ORC also acknowledges the proposal's intention to undertake restoration and planting within and adjacent to wetlands and waterways, which is considered a positive aspect of the proposal and may assist with enhancement of freshwater values and riparian function.

The application material indicates that earthworks, diversions, and discharges within 100 metres of wetlands can be managed so that wetland hydrology and water level ranges are not significantly impacted. Notwithstanding this, activities within and around wetlands may still trigger approval requirements under the NES-F, depending on the final design, extent of works, and location of infrastructure.

Accordingly, any substantive application should include sufficient assessment and delineation work to confirm the extent, values, ecological function, and hydrological characteristics of wetlands and associated freshwater receiving environments.

Water takes and allocation

We note that the applicant has not yet located specifically where the water will be taken from but further analysis will be undertaken after referral is granted and leading into the substantive process. ORC acknowledges the applicant's intention to refrain from taking water from over-allocated water bodies.

To assist with this assessment, Council provided updated flow estimates for creeks within the project areas to you on 30 March 2026 (shown in Table 1, below). As noted in our correspondence, the estimates are recent 7-Day MALF estimates based on comparisons with other gauged catchments, not on measured flow data.

Table 1 Updated allocation estimates

Catchment	Mean m3/s	MALF m3/s	Mean l/s	MALF l/s	Number Consents	Current Consented Allocation Rate l/s	Allocation Based on Plan (50% 7dMALF) (l/s)	Allocation available (l/s)	Over (1) or under allocated (0)
Gentle Annie Creek	0.340	0.110	340	110	1	50	55.0	5	0
Muddy Creek	0.168	0.042	168	42	0	0	21.0	21	0
Toms Creek	0.086	0.029	86	29	3	63.5	14.5	-49	1
Camp Creek (1)	0.234	0.092	234	92	2	74.1	46.0	-28	1
Franks Creek	0.066	0.017	66	17	2	23.4	8.5	-15	1
Gibbston Back Road Creek/Grassy Gully	0.130	0.030	130	30	0	0	15.0	15	0
Kawarau River (including unnamed tribs)	209.61	88.680	209610	88680	15	444.038	44340	43895.96	0

The above estimates likely differ from the information contained in the publicly available allocation layer in Otago Maps. The advice also noted that the creeks in the area are very steep and flashy, so suggested caution in relying too heavily on these estimates, which were produced as part of a regional catchment flow assessment.

ORC's hydrology team has confirmed that the current consumptive surface water allocation from the Nevis River catchment (including the main stem and tributaries) is approximately 708.15 l/s, with an additional 122 l/s allocated as non-consumptive takes. This information was provided to Oaks Living Ltd on 28 April 2026.

Should a substantive application include abstraction of water for potable or community supply purposes, ORC would expect to see a detailed assessment that addresses the matters of discretion listed under Rule 12.1.4.8 of the Regional Plan: Water

Discharges, stormwater, wastewater, and earthworks

Based on the information provided to date, ORC consider that further detailed assessment will be required at the substantive application stage in relation to:

- stormwater management and stormwater discharge effects;
- wastewater treatment and disposal;
- earthworks and sediment management;
- potential effects on hydrology, groundwater, surface water quality, and freshwater ecology; and
- the assumptions and mitigation measures relied upon in reaching conclusions regarding environmental effects.

ORC acknowledges that the applicant has advised that these matters will be addressed through more detailed technical assessments accompanying any substantive application.

ORC's compliance team noted that the current information remains relatively high level, and that future applications should include:

- detailed information regarding proposed water takes, wastewater discharges, and any reliance on existing water rights;
- detailed Environmental Management Plans (EMPs); and
- Erosion and Sediment Control Plans (ESCPs) for the relevant stages and sites.

River management and engineering matters

ORC's engineering team has provided the following preliminary comments:

- the relevant reach of the Kawarau River is not currently an area actively managed by ORC;
- ORC would be supportive of maintaining appropriate access to and along the river corridor to enable any future river management activities should they be required; and
- the applicant may also wish to engage with, or consider the views of, the Lower Clutha Liaison Group as the proposal progresses.

Contaminated land

ORC notes that some areas proposed for development may have been subject to historical land use activities listed within the Ministry for the Environment's Hazardous Activities and Industries List (HAIL), including activities associated with viticulture. As a result, there may be contaminated land considerations associated with future earthworks and development activities.

The applicant should consider whether any resource consents may be required for the disturbance of contaminated soils, earthworks, drilling activities, or associated discharges.

Further information regarding contaminated land management and the Selected Land Use Sites (SLUS) register is available on the ORC's website, noting that the SLUS register should not be regarded as a complete record of all properties in Otago. The absence of available information does not necessarily mean that the property is uncontaminated; rather no information exists on the database.

Natural hazards

ORC has also previously provided preliminary advice related to natural hazard matters associated with the proposal area. ORC's high-level natural hazard advice is attached to this letter as Appendix 1 and was provided to the applicant before the Geotechnical report was finalised.

Public transport

Gibbston is not currently served by ORC public transport. However, ORC are currently investigating potential public transport service options for a sub-regional service between Alexandra and Queenstown that could serve the Gibbston area in the future.

We offer the following comments on the provided application content:

- Due to the non-linear road network and fragmented development pattern, we would not expect to serve any segments of the development with public transport via the internal road network as per the Otago Regional Public Transport Plan land use policies.
- We would expect the Applicant to fund the implementation of bus stops at key locations on State Highway 6 or on internal roads adjacent to the highway to future proof the sites for public transport provision.

In a substantive application we would expect the following information to be provided:

- How the development would support the uptake of sustainable transport modes (walking, cycling, public transport) as per the Otago Regional Policy Statement (2021) transport system policies.
- How the travel demand generated from the development would compare to the capacity of State Highway 6. As per the Otago Regional Policy Statement's development of urban areas and urban expansion policies, the urban form of the development should be integrated with development infrastructure such as roads.

Ongoing engagement

ORC appreciates the applicant's ongoing engagement and willingness to continue discussions as additional information becomes available. Continued pre-application engagement, including the provision of draft technical assessments and supporting information where available, is likely to assist in identifying areas of agreement and any remaining matters requiring consideration through the formal approvals process.

If you have any queries or require clarification on the information provided, please contact me on 0800 474 082 or by emailing consent.fasttrack@orc.govt.nz

Yours sincerely,



Angela Fenemor
Consultant Planner



Jenny Ross
Team Leader Consents

Appendix 1: Natural Hazards advice provided to Oaks Living Ltd on 2 April 2026

Parts of the Gibbston Valley may be exposed to a range of natural hazards events, and parts of the proposed development areas are within mapped natural hazard areas. The applicant should identify and assess the natural hazards with potential to impact these proposed development areas – including flooding, slope stability (landslide, rockfall or debris flooding), and seismic hazards.

For further hazard assessments, the supporting information and assessments will need to be technically sound, supported by evidence and comprehensive (i.e. consider likely adverse effects for a wide range of situations including, low likelihood/high consequence situations, residual risk and address all natural hazard risks). The supporting information will need to be provided by a suitably qualified professional.

Regional-scale natural hazards mapping information for this area is available on the [ORC natural hazards portal](#) and is summarised below. These datasets are compiled at a regional-scale and intended to be used for hazard identification (“where might there be a hazard to look for?”), not as a basis for detailed design or to provide site-specific hazards information. For some datasets, mapping has an accuracy $\pm 100\text{m}$ at best.

Slope stability hazards

ORC holds two regional-scale slope stability hazard mapping datasets;

- Landslide mapping from GNS Science of existing landslide features (even those which may be inactive). This dataset does not necessarily identify all locations which may be vulnerable to potential future landslide, only those where an existing landslide feature has been identified.
- Rockfall hazard ‘awareness areas’ based on hazard modelling by [GNS Science \(2022\)](#).

The [NZ Landslide Planning Guidance](#), published by GNS Science in 2024, can provide a guide to the level of detail of slope stability investigation which may be required for various purposes.

Flooding and debris flooding hazards

Flooding may occur in low lying areas adjacent to stream channels or on active alluvial fan surfaces.

ORC holds two alluvial fan hazard mapping datasets;

- Regional-scale mapping of alluvial fan surfaces in Otago was documented by [Opus and GNS Science \(2009\)](#). Alluvial fans are classified by activity status (active or inactive), and dominant activity type (debris- or floodwater-dominated, or ‘composite’ where these processes cannot be separated due to the scale of mapping or where fans appear to be subject to both processes).
- The ORC ‘fan landform’ mapping layer was developed by [GNS Science \(2009\)](#). This shows mapping of the main landform features, where areas mapped as ‘fan active bed’

or 'fan recently active' may be exposed to natural hazard processes such as flooding or debris flooding.

In locations below steep catchments with a high sediment loading, Flooding may contain significant debris content and cause debris inundation – e.g. a debris flooding event occurred nearby in February 2020 at Grassy Gully Creek (Gibbston Back Road) – see photo below.

Seismic hazards

Several strands of the active NW Cardrona Fault cross the Gibbston Valley at the Glenlee Glenroy – Mānia project area. This is one of the more active faults in Otago, with an interpreted recurrence interval of ~13,200 years. The fault mapping was compiled by GNS Science and is documented in reports by GNS Science:

- GNS Science, 2019. [General distribution and characteristics of active faults and folds in the Queenstown Lakes and Central Otago districts.](#)
- GNS Science, 2025. [Review and update of active geological fault and fold characterisation in the Otago region.](#)

The spatial data for the mapped active faults dataset include the following attributes:

a. Surface form which quantifies how easily one could map a particular active fault or fold feature at site-specific scales (whether well expressed, moderately expressed, not expressed or unknown).

b. Certainty which signifies whether a mapped active fault/fold feature is known or suspected (whether definite, likely, possible, or potentially active).

c. Recurrence Interval (estimated time between successive prehistoric earthquakes)

ORC has developed buffers around mapped active faults, named 'fault awareness areas', the process of developing these buffers is described in [a 2025 ORC report](#). These buffer areas highlight that an active fault is known to be present in this location. The fault buffers are designed to;

1. be large enough to encompass the full range of plausible locations of the active fault,
2. to account for the inaccuracies involved in mapping at a regional scale, and
3. to accommodate the possibility that future fault ruptures and associated ground deformation may not coincide exactly with mapped areas of previous fault rupture deformation."

[A 2015 GNS Science report](#) provides guidance for management of active faulting hazards – this document was developed for the Canterbury region, but has also been used as the basis for developing the Otago fault buffers noted above.

The Gibbston Valley area is not considered to be prone to liquefaction, based on regional-scale mapping [by GNS Science \(2019\)](#).

Natural hazard management

ORC does not generally provide advice on recommended or acceptable natural hazard mitigation approaches, as this is for an applicant to decide and propose hazard mitigation interventions.

If proposing engineered defences for management of flooding hazards then an ORC 'Defence against Water' consent may be required. A defence against water is defined as: *"Any dam, weir, bank, carriageway, groyne, or reservoir, and any structure or appliance of any kind which has or may have the effect of stopping, diverting, controlling, restricting, or otherwise regulating the flow or spread or subsidence, in or out of a water body, of water including flood waters, which is specifically established for the purpose of flood hazard mitigation."* [Consenting team to check – other consents may also be required, e.g. for earthworks?]

The [National Policy Statement for Natural Hazards \(NPS-NH\)](#) provides policy guidance for management of natural hazard risk associated with subdivision use and development. The policies of the NPS-NH are copied below;

- **Policy 1:** When considering natural hazard risk associated with subdivision, use or development, the risk level must be assessed using the risk matrix.
- **Policy 2:** Natural hazard risk associated with subdivision, use and development must be managed using an approach that is proportionate to the level of natural hazard risk.
- **Policy 3:** Where subdivision, use or development is assessed as having very high natural hazard risk, that risk must be avoided.
- **Policy 4:** Where subdivision, use or development, including any associated mitigation measures, will create or increase significant natural hazard risk on other sites, that risk must be avoided or mitigated using an approach that is proportionate to the level of natural hazard risk.
- **Policy 5:** Natural hazard risk assessment and decisions must be based on the best available information and must be made even when that information is uncertain or incomplete.
- **Policy 6:** The potential impacts of climate change to at least 100 years into the future must be considered.

The Otago Regional Policy Statement ([Otago Regional Policy Statements](#)) also contains objectives and policies relevant to the management of natural hazards and risk and development in areas where natural hazards are identified.



Fig. 13: Aerial view looking down the fan and channel. The 1st culvert is in the foreground. Finer grained flows which escaped the channel travelled a long distance down the fan surface

Your written comments on a project under the Fast Track Approvals Act 2024

Project name	Oaks Living Limited
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Before the due date, for assistance on how to respond or about this template or with using the portal, please email contact@fasttrack.govt.nz or phone 0800 FASTRK (0800 327 875).

All sections of this form with an asterisk (*) must be completed.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Queenstown Lakes District Council (QLDC)		
*First name	Fiona		
*Last name	Blight		
Postal address	74 Shotover Street, Queenstown 9300		
*Contact phone number	s9(2)(a)	Alternative	s9(2)(a)
*Email	s9(2)(a)		

2. Please provide your comments on this application
Summary of QLDC Comments Thank you for the opportunity to comment on the application under the Fast-track Approvals Act 2024 (FTAA) for a <u>staged</u> urban and rural residential development, proposed by Oaks Living Limited, on five distinct sites extending from the Crown Range Terrace at the eastern end of the Wakatipu Basin, through Gibbston Valley, to the Waitiri Peninsula above Victoria Flats, in Queenstown Lakes District. QLDC considers the application does not provide sufficient information on a number of matters necessary for the Minister to make an informed decision, as set out below, meaning the Minister <u>must decline</u> the referral under s 21(3)(c) of the FTAA. QLDC also considers that the project is very likely to have significant adverse effects on the environment for the reasons set out below, and therefore the Minister <u>should</u> exercise his discretion to <u>decline</u> the referral under s 21(5)(c) of the FTAA. The referral application does not contain sufficient information to enable the Minister to make an informed referral decision, both in respect of the claimed benefits, and the very likely significant adverse effects. This deficiency is particularly important given that entry into the FTAA process is intended to facilitate a streamlined pathway to approval, reflected in both the purpose of the FTAA and the substantive decision-making framework in s81 of the FTAA. QLDC cannot sufficiently

emphasise the irreversible nature of a development of this type being enabled in this part of the district.

QLDC's reasons for why the Minister should decline the referral application are:

- The application identifies each development node as a separate stage, in accordance with s 13(4)(f). **While a single substantive application is proposed to be lodged, s 13(4)(f)(iii) still requires an explanation of how each stage satisfies the criteria in s 22.** The applicant has not demonstrated that each stage would deliver regional or national benefits as a stand-alone project. This is particularly relevant given that the development nodes (with the possible exception of Taiheke and Karapuke) are geographically separate. QLDC considers it unlikely that each stage would independently satisfy the relevant criteria, particularly when its adverse effects and disbenefits are taken into account.
- The project does not represent a well-functioning urban environment which is the first objective of the National Policy Statement on Urban Development (NPS-UD) and will not contribute to a well-functioning urban environment given its rural location some considerable distance from any other urban area – **therefore it does not achieve s22(2)(a)(iii) of the FTAA.** It is also fragmented development; the applicant has not demonstrated that it meets a need in terms of type, price and location for different households; it is car-centric development located away from labour markets with no public transport; and is unlikely to support reductions in greenhouse gas emissions.
- The project is directly contrary to the Otago Regional Policy Statement (ORPS), Queenstown Lakes District Plan (PDP) and the Queenstown Lakes Spatial Plan.
- The project is very likely to have a significant effect on the functioning of the State Highway Network (including intersections and congestion).
- The project is likely to result in a significant risk to the retention of the Internationally recognised Kawarau Gibbston Dark Sky Park.
- The project is likely to create a significant risk to the loss of Gibbston Valley as an internationally recognised wine-growing area and place pressure on existing viticulture activities.
- The Kūrae–Waitiri development node introduces potential reverse sensitivity activities, including residential and visitor accommodation, in close proximity to the Victoria Flats Landfill. This creates an unacceptable risk of future reverse sensitivity effects on a regionally significant piece of infrastructure serving both the Queenstown Lakes and Central Otago districts. Given the location of the proposed development and the sensitive activities proposed within, QLDC considers it unlikely that these potential effects can be adequately addressed through a substantive application process.
- An indicative assessment undertaken by Market Economics suggests that the potential costs associated with constraining or relocating landfill operations could be material, with an estimated disbenefit in the order of \$138 million.
- The project does not reflect that most of the development areas are within an outstanding natural landscape (which are recognised as matters of national importance in s 6 of the RMA)

and proposes development that far exceeds the landscape capacity to absorb that development.

- The project is not supported by existing or planned public infrastructure. No public three waters services are available to the site, necessitating private infrastructure provision and ongoing private maintenance arrangements. In addition, the site is not served by existing or planned public transport, resulting in a high reliance on private vehicle travel and likely adverse effects on the transport network through increased congestion.
- Further to i), the application information provides no feasible design solution to serve the development nodes with suitable private three waters infrastructure.
- Insufficient information has been provided on the extent to which natural hazards can be addressed in accordance with the National Policy Statement on Natural Hazards (NPS-NH); and

Further, QLDC considers that the proposal does not meet the tests in sections 22(1)(a) and 22(2)(a)(iv) of the FTAA. The applicant has not demonstrated that the proposal will result in significant regional or national benefits. The economic benefits identified in the proposal are primarily based on gross activity measures and do not adequately demonstrate the extent to which these benefits are net additional, rather than reflecting a redistribution or acceleration of activity that may otherwise occur elsewhere in the district.

The applicant's economic assessment identifies approximately \$2.17 billion in capital expenditure over an 11-year period and estimates a net present value of economic activity of between \$1.11 billion and \$1.38 billion. However, QLDC's economic advice from Market Economics notes that these figures represent gross economic activity generated by the development rather than a measure of economic benefit. The assessment does not adequately account for trade-offs, opportunity costs, or adverse effects that may reduce the overall benefit attributable to the proposal.

Of particular relevance are the transport effects associated with the development. Transport advice from Stantec for QLDC indicates that the additional traffic generated by the proposal is likely to exacerbate congestion on the State Highway 6 corridor between Gibbston Valley and Frankton, including the constrained Shotover Bridge corridor.

The expected substantial disbenefits resulting from the economic costs of increased travel times, reduced travel reliability, and associated network inefficiencies resulting from additional congestion, have not been assessed by the applicant. These are economic disbenefits that should be allowed for. Preliminary advice that QLDC is procuring in respect of these disbenefits suggest the extent of the disbenefits could be higher than \$70m (NPV over 40 years).

The same preliminary advice estimates that the wider economic consequences of this congestion could result in a reduction in regional GDP of approximately \$149 million over the assessment period. These significant quantified disbenefits have not been adequately accounted for in the applicant's assessment of regional and national benefits.

Without Prejudice to QLDC's Opposition to Referral – Minimum Requirements in the Event of Referral

As set out above, QLDC considers the application does not satisfy the criteria the Minister must assess. On that basis, QLDC does not consider the referral application should be approved. However, if the

Minister reaches a different conclusion, QLDC considers the applicant must provide the following information with any substantive application:

- A full assessment as to how the proposal meets (or, does not meet) the requirements for a well-functioning urban environment as set out in Policy 1 of the NPS-UD, as well as demonstrate how the proposal meets Objectives 1-8;
- An assessment demonstrating how the proposal addresses housing needs (including in the location proposed) and how the proposal will deliver affordable housing using an appropriate mechanism (and at what price point across all development nodes), taking into account the need for ongoing costs to privately fund ongoing private infrastructure, parks, roads, and roading services if these are to be retained in private ownership and not vested;
- A comprehensive integrated transport assessment – similar to the scope of the ITA that QLDC considers necessary for the Ridgeburn FTAA substantive application but focused on the Oaks Living project, as developed co-jointly by NZTA and QLDC, which is attached to Appendix 1 of these comments. This should form the starting point of what the scope of this applicants ITA should include.
- An assessment of the feasibility of the proposed school site, taking into account size, shape and need, supported by consultation with the Ministry for Education, and confirmation from the Ministry of Education on school capacity, catchment implications, funding, timing and staging for both primary and secondary schools to service the development.
- Confirmation that the proposal would not require infrastructure investment, servicing capacity or funding to be redirected from Spatial Plan priority growth areas, thereby undermining the implementation of the Spatial Plan, Long Term Plan, and associated infrastructure delivery programmes.
- A revised natural hazards risk assessment in accordance with the NPS-NH as set out in the Section 5 of the Natural Hazards peer review undertaken by Anna Punt – Beca.
- A lighting assessment of the proposal and proposed mitigation that demonstrates how the project will continue to protect the Kawareau Gibbston Dark Sky Park to address the matters raised in the peer review by Chris Martin.
- Proposed three waters network design solutions and network locations, including feasibility for potable water distribution and location of any wastewater disposal fields and how these integrate with public open space.
- Noise, odour and amenity assessments in relation to the Victoria Flats Landfill and demonstration as to how any potential reverse sensitivity effects are to be managed so as not to compromise the ongoing operation and development of the landfill, including any future consenting required, and assessment of whether the development of Kūrae -Waitiri is even feasible without creating future reverse sensitivity effects on the regionally significant landfill.
- An assessment of the effects of the proposal on the viticultural values of the Gibbston Valley, including reverse sensitivity (particularly to frost fans and other critical viticultural machinery), economic effects on land value and ongoing viability for grape-growing.

- A social impact assessment to quantify the effects on future residents of these developments, in particular accessibility to social infrastructure, recreation, and employment.
- A comprehensive revised landscape assessment that addresses each of the development stages/areas, addressing the matters set out in the landscape peer review by Matthew Jones – Isthmus Group.
- Identification of any dependencies required as part of the five development nodes being developed across five staging over 11 years, for matters such as intersection upgrades, roundabouts, and provision of infrastructure (including social infrastructure such as any school).
- An assessment of the requirements of the QLDC Future Parks and Reserves Provisions Plan 2021 with regard to designing fit for purpose recreation reserves.
- An assessment of the development's contribution to greenhouse gas emissions compared to development in existing and planned urban areas to also inform a contribution to the evaluation of the proposal as part of a well-functioning urban environment.

Strategic Context

Queenstown Lakes District has substantial development capacity within its existing urban growth boundaries and planned growth areas under its spatial and long-term plans. Significant housing development is already occurring across live-zoned land at rapid pace, with further capacity available to accommodate future demand within areas that have been strategically planned to be serviced by network and social infrastructure.

In QLDC's view, there is a misconception that additional housing capacity cannot be accommodated within the existing planning framework; however, significant zoned and infrastructure-supported development capacity already exists. There is no demonstrated need for Fast-track approval of housing developments outside the district's planned and zoned growth areas to meet housing demand.

Yet, current growth is materially outpacing the provision of enabling infrastructure, particularly transport (state highways, local roads, and public transport) and wastewater and water services. But the use of the FTAA for housing is placing additional pressure on infrastructure, with the number and scale of fast-track applications located within the district representing a level of development pressure that is both unprecedented and disproportionate to the district's size, its resourcing and infrastructure capacity. The FTAA applications (shown on Attachment A to the QLDC Strategy and Policy Technical Memo)¹ also include many developments at greater density or in unanticipated locations without clear alignment with, or funding for, wider network transport, waste and water infrastructure.

As a result, development in the district approved under the FTAA is unlikely to be adequately serviced by existing or planned transport or social infrastructure. Without a coordinated, funded, and staged infrastructure response, this will exacerbate capacity constraints, undermine efficient delivery, and

¹ **Ayrburn** and **Homestead Bay** have obtained substantive approvals. **Ridgeburn** and the **Remarkables** have lodged substantive applications and the formal approvals process. **Simplicity** and **Bowen Peak Powerhouse** are successful referrals. **Gibbston Village**, **The Hills Resort Development**, **Coronet Village**, **Flints Park** and **Silver Creek** are all listed projects.

lead to wider adverse effects, including network disruption and regional economic impacts. It will also constrain the delivery of housing and development anticipated through the District Plan and (in the medium and long term) Spatial Plan by diverting limited infrastructure capacity and investment from planned growth areas.

Allowing development to proceed outside of a coordinated, infrastructure-led framework—where substantial capacity has already been strategically planned—undermines the ability to deliver well-functioning urban environments. It risks entrenching inefficiencies, constraining future infrastructure investment, and precluding the delivery of integrated, high-quality development consistent with nationally and internationally recognised best practice. In short time, this will erode the district's capacity to accommodate growth in a sustainable and economically effective manner.

Unplanned development of this nature has the potential to significantly compromise the district's ability to function effectively, with consequences that extend well beyond local effects. Queenstown Lakes is a critical component of New Zealand's tourism economy, and poorly coordinated growth risks undermining the quality, accessibility, and resilience of infrastructure that supports both residents and visitors. This creates material risks for New Zealand's international reputation as a premier tourism destination and for the performance of the wider tourism sector.

Significant works will be required to place intersections along State Highway 6 (the gateway to Queenstown from the north for tourists and commuters from central Otago), impacting its efficient operation. QLDC considers that this proposal, both individually and cumulatively, will contribute to harming New Zealand's international recognition as a premier tourism destination, both reputationally and economically from traffic congestion on a critical lifeline thoroughfare.

- **Section 17 Matters**

Section 17(3)(a)(i)

The Council is not aware of any applications that have been lodged with QLDC that would be competing applications if a substantive application were lodged.

Section 17(3)(b)

There are a number of issues with the project that are discussed in these comments and the attached technical memoranda that are relevant to the application, and the decision that the Minister is required to make under s 21 of the FTAA, with reference to the criteria in s 22 of the FTA.

QLDC notes that the FTAA allows the Minister to consider any other matters the Minister considers relevant under s 22(2)(b), along with the criteria in ss 22(1) and (2). QLDC notes that some of the matters raised in its comments include matters which should be considered by the Minister under s 22(2)(b).

- **Consultation**

Consultation has been undertaken by the applicant with the Council, however, not to the extent that Council has been able to make informed comment given the information that is now contained in the referral application.

- **Peer Reviews**

QLDC has relied on independent peer reviews, as well as input from a range of Council internal experts, covering:

Independent peer reviews

- Transport (including traffic) - Stantec
- Economics – Market Economics
- Natural hazards - Beca
- Landscape - Isthmus
- Dark Skies Consulting – Chris Martin
- Planning – Marcus Langman

Internal memoranda

- *QLDC Transport and Water Infrastructure Technical Memo*
- *QLDC Landfill and Reverse Sensitivity Technical Memo*
- *QLDC Strategy and Policy Technical Memo*
- *QLDC Parks and Reserves Technical Memo*

QLDC notes that this is not a comprehensive review of all issues that it will likely need to address should the application proceed to a substantive stage. Other issues that are likely to be engaged in relation to expert advice include ecology, heritage, urban design, and impact on viticulture.

- **Section 22 Assessment – Criteria for Assessing Referral Application**

Section 22(1) (a) Does the project have a significant regional or national benefits?

The project consists of five different development areas that will be developed over five separate stages over 11 years, and section 21(1)(a)(ii) requires that each stage is required to meet the criteria in s 22 FTAA *if considered as a standalone project*. This has not been demonstrated or addressed in the application material. S 21(3) requires that the Minister must decline the application if the application may not be accepted under s 21(1).

QLDC is concerned that the proposal takes a very narrow approach to looking at the economic benefits, that the assessment of disbenefits is incomplete, and the applicant has assessed the staged development as a whole.

QLDC does not consider that each stage would represent a significant regional benefit. Particularly if there is no legal ability to ensure that all five stages are implemented. However, that is for the applicant to demonstrate, and this has not been done in the application before the Minister.

Section 22(1)(b)(i) Would referring the project facilitate delivery in a more timely and cost-effective way?

No. QLDC does not consider referral would facilitate delivery in a more timely or cost-effective manner. The proposal is intended to be implemented in stages over approximately 11 years, creating significant uncertainty regarding when, how, or whether individual development nodes will proceed.

Given that economic conditions, infrastructure requirements, housing demand, environmental constraints and planning frameworks are likely to change over that period, a conventional RMA process is better suited to assessing and adapting future stages as they come forward. Referral under the FTAA would largely serve to establish approval pathways now for urban development in unplanned rural locations, without resolving the substantive issues associated with the proposal or providing certainty that future stages can be appropriately integrated with changing environmental, infrastructure and planning circumstances.

Section 22(1)(b)(ii) Is the referral unlikely to materially affect the efficient operation of the fast-track approvals process?

QLDC considers that referral of the project is likely to materially affect the efficient operation of the fast-track approvals process. The referral application contains significant information gaps that prevent a proper assessment of whether the project satisfies the criteria in s 22.

QLDC experience under the FTAA demonstrates that referring projects with substantial information deficiencies does not create efficiency. Instead, it transfers fundamental project assessment from the referral stage to the substantive stage, requiring extensive requests for further information, supplementary technical assessments and additional procedural steps to address matters that should have been resolved before referral. The practical consequence is that costs and resource demands are increasingly being transferred from applicants to councils, creating significant resourcing pressures, cost recovery concerns, and undermining the efficiency gains the FTAA is intended to achieve.

This concern is amplified in the present case given the proposal involves multiple geographically separate development nodes to be implemented over an approximately 11-year period, yet provides limited information regarding infrastructure servicing, staging, cumulative effects, funding responsibilities and community infrastructure needs.

The project also cannot be considered in isolation. Together with other fast-track projects currently progressing through substantive approvals processes, it has the potential to create significant cumulative demands on transport, three waters, open space, recreation, education, health and other social infrastructure. Those effects are inherently difficult to assess where projects are advanced independently, over different timeframes and with varying levels of information.

For these reasons, QLDC does not consider referral would support the efficient operation of the FTAA process. Referral should not be used as a mechanism to defer fundamental project assessment until the substantive stage, particularly where the information currently provided is insufficient to enable an informed referral decision.

Section 22(2)(a)(i) Has the project been identified as a priority in any government or sector plan or strategy?

No. Nor is QLDC aware that the project has been sought to be identified as a priority in any government or sector plan or strategy. The application instead appears to be an opportunistic effort to use the FTAA regime.

Section 22(2)(a)(ii) Will the project deliver new or support existing regionally / nationally significant infrastructure?

No. QLDC does not consider the project will deliver new, or support existing, regionally or nationally significant infrastructure.

No formal agreements are in place in relation to transport infrastructure, and insufficient information has been provided to assess the extent of the proposal's effects on the State Highway network. Based on the information available, QLDC's view is that the proposal will increase demand on, rather than support, nationally significant transport infrastructure.

Similarly, while the applicant proposes to privately fund and deliver three waters infrastructure, insufficient information has been provided regarding the nature, location, capacity, funding, ownership, operation or long-term maintenance of that infrastructure. As a result, QLDC is unable to conclude that the proposal will deliver new regionally or nationally significant infrastructure or support existing infrastructure. It will also generate potential reverse sensitivity effects on the regionally significant Victoria Flats rubbish tip.

Section 22(2)(a)(iii) Will the project increase housing supply or contribute to a well-functioning urban environment?

While the project would increase housing supply, QLDC does not consider there is a demonstrated need for the proposed housing in these locations. The district already has significant zoned and infrastructure-supported development capacity within planned growth areas to accommodate future demand. As a result, QLDC does not consider the project would contribute to a well-functioning urban environment, instead promoting unplanned urban development in a rural area outside the district's strategic growth and infrastructure planning framework.

Section 22(2)(a)(iv) Will the project deliver significant benefits?

No. As above QLDC does not consider that this housing is required in this rural area of the district. Given the location and associated impacts on the transport network in particular, it will not deliver significant benefits and rather will exacerbate both economically and reputationally. There are a range of economic impacts that have not been considered as part of the economic analysis. In particular, the project results in:

- the potential for a significant impact on the transport network (including the function of State Highway 6);
- potential impacts on the values of the Outstanding Natural Landscape of the Gibbston Valley;
- a depletion of the Gibbston Valley wine-growing resource;
- potential impacts on the Kawarau Gibbston Dark Sky Park; and
- potential reverse sensitivity effects on adjacent rural land uses and Victoria Flats Landfill.

In addition, as noted above, the applicant has not shown that each stage of the proposal will deliver significant regional benefits. QLDC does not consider that the applicant has sufficiently demonstrated that the proposal, and each of its stages, will deliver significant benefits, particularly given the relatively light assessment of benefits when weighed with the disbenefits of the project.

Section 22(2)(a)(v) Will the project support primary industries (e.g. viticulture) in Queenstown-Lakes District?

No. QLDC does not consider the project will support primary industries in the Queenstown Lakes District.

Instead, the proposal would result in the loss and fragmentation of highly productive land, including land identified as LUC 3 under the NPS-HPL. In addition, four development nodes are located within the Gibbston Character Zone, where the principal purpose is to provide for viticulture and associated commercial activities.

Rather than supporting primary production, the proposal has the potential to undermine the ongoing viability of viticulture and other productive rural activities through the direct loss of productive land, increased reverse sensitivity effects, and pressure for further urban encroachment. QLDC's economic peer review also identifies the risk that urban development will increase speculative land value pressures, reducing the long-term economic viability of productive rural land uses. These opportunity costs have not been adequately assessed by the applicant.

22(2)(a)(vi) Will the project support development of natural resources?

This criterion is not relevant to the proposal.

22(2)(a)(vii) Will the project support climate change mitigation, such as whether it reduces or removes greenhouse gas emissions?

No. While the project does include a solar farm, there is no assessment of its effects, including the significance of effects, which is an information requirement for a referral application.

QLDC has significant concern regarding car dependency as set out in the technical memoranda attached. No information is provided as to the feasibility of solar farming in this location, nor any information guarantees that it can be supplied, and as such QLDC do not consider its provision can be relied upon. Notwithstanding, QLDC note that there does not appear to be any proposal to weigh or offset solar generation with greenhouse gas emissions.

This matter has not been addressed in the application material in sufficient detail. In particular, no assessment has been undertaken on trip distances to employment destinations or comparison to development in other areas within existing planned developments. While some trips will take place internally within the development areas, these are likely to be largely private vehicle trip as there is no public transport available.

Further information is needed as part of a full integrated transport assessment to determine the impact on greenhouse gas emissions.

Section 22(2)(a)(viii) Will the project support climate change adaptation or recovery from events caused by natural hazards?

This criterion is not relevant to the proposal, but it is noted the application does not adequately address risk from natural hazards in some locations, as raised in the Natural Hazards peer review by Beca.

Section 22(2)(a)(ix) Will the project address significant environmental issues?

This criterion is not relevant to the proposal.

Section 22(2)(a)(x) Is the project consistent with local or regional planning documents, such as spatial strategies?

The proposal is directly contrary to the PDP, the ORPS, and the Queenstown Lakes Spatial Plan.

The Spatial Plan identifies the areas subject to the proposal (with the exception of that portion of Ara Tihi – Eastburn which is located in the Wakatipu Basin Rural Amenity Zone and is outside of the ONL) as protected from urban development.²

Without limiting the numerous issues in the PDP to which the proposal is contrary, the proposal seeks to provide for urban development outside of the UGB, which is contrary to the strategic directions of the PDP as set out in Chapter 3 and Chapter 4. In addition, it does not provide for a compact, integrated and well-designed urban form, nor does it protect the district's rural landscapes from sporadic and sprawling urban development.

In relation to urban expansion provided for under the ORPS, the proposal is contrary to UFD-P4, which requires that urban expansion only occur where it:

- contributes to establishing or maintaining the qualities of a well-functioning urban environment;
- is consistent with strategic plans or required to address a shortfall;
- achieves consolidated, well designed and sustainable development in and around existing urban areas;
- is logically and appropriately staged and will not result in inefficient or sporadic patterns of settlement and growth;
- is integrated efficiently and effectively with infrastructure, development infrastructure and additional infrastructure in a strategic, timely and co-ordinated way;
- addresses issues of concern to iwi and hapū, including those identified in any relevant iwi planning documents;
- manages adverse effects on other values or resources identified in the RPS that require management or protection;
- avoids highly productive land except as provided for in the NPSHPL, and considers adverse effects, particularly reverse sensitivity effects, on existing and anticipated primary production activities or rural industry activities when determining the location of the new urban/rural boundary;
- protects the efficient operation, maintenance, upgrading and development of nationally and regionally significant infrastructure; and
- limits, to the extent reasonably practical, the effects on operation, maintenance, upgrading and development of development infrastructure and additional infrastructure.

² Queenstown Lakes Spatial Plan pages 36 and 37.

Section 22(2)(b) Are there any other relevant matters to consider?

QLDC considers that effects on the Kawarau Gibbston Dark Sky Park, and the use of, and impacts on, the Gibbston Valley's viticulture resource are matters that are directly relevant to the Minister's decision on the referral, with one of the reasons for decline being that a project may have significant adverse effects on the environment. As set out in QLDC's expert peer reviews, these matters are significant for the integrity of the Gibbston Character Zone and its intended use, and have the potential to result in significant adverse effects on tourism, Queenstown's identity, and its international reputation.

Allowing sporadic urban development to undermine the outcomes sought for these areas, particularly when housing development can be provided elsewhere in the district, creates significant reputational risk to both the Council and to central Government. QLDC considers that both of these matters should be considered by the Minister in making his decision on the referral application.

Section 21(5) Any reasons to decline the application?

QLDC considers there are compelling reasons for the Minister to decline the application under s 21(5)(c).

Notwithstanding the significant information deficiencies in the referral application, the proposal has the potential to result in substantial adverse environmental effects. These include urban development in a rural area outside planned development areas, adverse effects on the Gibbston Valley viticultural resource and Internationally recognised Gibbston Dark Sky Park, potential reverse sensitivity effects on regionally significant infrastructure such as the Victoria Flats Landfill, and adverse effects on the operation and efficiency of the state highway network.

The proposal is also inconsistent with the District's established spatial growth and infrastructure planning framework. It promotes dispersed urban development across five geographically separate development nodes outside identified growth areas, contrary to the coordinated and efficient delivery of planned growth, infrastructure investment, and well-functioning urban environments.

Importantly, the application does not contain sufficient information to enable the Minister to properly assess the scale of the proposal, its effects, infrastructure requirements, staging arrangements, cumulative effects, or mitigation measures. These uncertainties are amplified by the proposal's intended implementation over an approximately 11-year period.

Taken together, the significant adverse effects, departure from the District's planned growth framework, potential impacts on regionally significant resources and infrastructure, and substantial information deficiencies weigh strongly against referral. QLDC therefore considers there are multiple grounds on which the Minister may decline the application under s 21(5)(c).

- **Inputs From QLDC departments**

6.1. QLDC Property and Infrastructure and Landfill

QLDC Property and Infrastructure consider that, while the three waters servicing strategy can *potentially* be resolved through detailed design and regulatory controls, significant transport

concerns remain. Further assessment is required to demonstrate that the Project can be integrated into the wider transport network and proceed without creating unacceptable long-term transport, infrastructure, and land use effects.

In relation to the Victoria Flats Landfill, the application does not adequately demonstrate that the ongoing operation, future development, consenting pathway, and operational flexibility of the landfill can be protected from potential reverse sensitivity effects arising from the proposed development. In particular, the assessment does not adequately address future land use conflict associated with introducing substantial residential and visitor accommodation activities in proximity to the landfill.

6.2 Planning

Marcus Langmas has undertaken a planning peer review of the proposal, and considered the input from experts and Council staff. The planning review raises concerns with the fact that, as a staged development, the proposal has not demonstrated that each stage would have significant regional or national benefit. In addition, the review considers the proposal will not result in a well-functioning urban environment, and is contrary to the ORPS, the PDP, and Spatial Plan.

6.3 QLDC Strategy and Policy

Strategic Growth does not support the proposal proceeding on the information currently available.

While the proposal may provide additional housing supply and economic activity, it would enable substantial residential development outside the locations identified and tested through the PDP and Spatial Plan, in a context where the district already has significant plan-enabled housing capacity.

6.4 QLDC Parks and Reserves

Parks and Open Spaces do not support the application proceeding on the information currently available. While the project may provide areas of open space and some communal facilities, it has not demonstrated that it meets the relevant referral criteria of the FTAA.

In particular, the project has not demonstrated that it would contribute to a well-functioning urban environment, for the purposes of section 22(2)(a)(iii). They note the project does not provide suitable open space or public community facilities that would meet the residents' recreation needs, and there are no suitable reserves or facilities in the Gibbston area.

They recommend that an assessment of the requirements of the QLDC Future Parks and Reserves Provisions Plan 2021 is undertaken with regard to designing fit for purpose recreation reserves, and without these matters being resolved, the project has not demonstrated that it can be accommodated without increasing pressure on the existing Whakatipu open space and community infrastructure networks.

- **QLDC Conclusion**

Overall, QLDC strongly oppose the project being accepted and referred to the fast-track approvals process.

List of Appendices:

- *Transport Peer Review*
- *Economic Peer Review*
- *Natural Hazards Peer Review*
- *Landscape Peer Review*
- *Dark Skies Peer Review*
- *Planning Technical Memo*
- *QLDC Transport and Water Infrastructure Technical Memo*
- *QLDC Landfill and Reverse Sensitivity Technical Memo*
- *QLDC Strategy and Policy Technical Memo*
- *QLDC Parks and Reserves Technical Memo*

Managers signoff

Fiona Blight

Manager Resource Consents
Planning and Development
Queenstown Lakes District Council

Technical Memo

To:	QLDC Resource Consent Team
From:	Christopher L. Martin – Dark Skies Consultant
Date:	Thursday, 16 July 2026
Subject:	Fast-track Approvals Act 2024 Oaks Living Limited – Waitiri Fast Track Referral Application (FTRA 2603) Dark Skies – s 17 comment

1. Executive Summary

- 1.1. The applicant (Oaks Living Limited) has submitted a proposal (FTRA 2603) within and in the immediate vicinity of an internationally-recognised Dark Sky Park. While the applicant indicates that a detailed lighting plan will be produced at a later stage, the present referral application contains no details of any constraints on the light pollution that will be caused by the proposed development.
- 1.2. This report concludes that the proposed development is likely to negatively impact the dark sky characteristics of the area designated as the Kaurau Gibbston Dark Sky Park, which the sections of the proposed development are within or adjacent to. In particular the application contains drawings of lights that would project light directly upwards onto the sky, and it is likely that other lighting fixtures would cause glare or light pollution. To mitigate these risks, I recommend that any development in the area within 1-2 km of the Dark Sky Park be conducted at a minimum under AS/NZS 4282-2023 Environmental Zone A0 standards for the control of obtrusive light, as well as incorporating a deeper consultation with the Dark Sky Park to address any concerns they might have.

2. Qualifications and Experience

- 2.1. I hold a Ph.D. in Physics from the University of California, Santa Barbara, am a Fellow of the American Physical Society and a member of the International Astronomical Union.
- 2.2. I have worked as an astronomer for over 20 years first with the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts and then as an Associate Professor with tenure at Oberlin College in Ohio. I then pivoted to science policy and worked as a congressional staffer in the U.S. Senate Committee on Commerce, Science, and Transportation and then as a Director of Physical Sciences for The Kavli Foundation. In these roles I produced peer-reviewed scientific publications and position papers on topics ranging from astrophysics to economics.

- 2.3. Specifically on the topic of dark skies, I am a member of the International Astronomical Union's Centre for the Protection of the Dark and Quiet Skies as well as a board member of the Aoraki-Mackenzie International Dark Sky Reserve covering dark sky issues for a region of over 4000 square kilometres centered around Lake Tekapo. In these roles, I have authored studies on national regulations for dark skies globally as well as their specific implementation in New Zealand.
- 2.4. While this report relates to a referral application made under the Fast-track Approvals Act 2024 (FTAA), I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code in the preparation of this report and will follow it should I present evidence at a hearing. Unless I state otherwise, this assessment is within my area of expertise, and I have not omitted to consider any facts known to me that might alter or detract from the opinions I express.
- 2.5. I am aware of my role to assist the QLDC as an independent Dark Skies expert. As such, the recommendations made in this memorandum are my own, based on my expertise.

3. Matters for Review

- 3.1. The following documents were provided by QLDC and are considered as part of my memo:
- a. Appendix A - Masterplan Document.pdf
 - b. Appendix B - Project Area Maps.pdf
 - c. Appendix D - Housing Typologies.pdf
 - d. Appendix H - Ecological Assessment.pdf
 - e. Appendix K - Meeting Records.pdf
 - f. Appendix M - Landscape Assessment.pdf
 - g. Application Consultation Document.pdf
 - h. PA25851 - Waitiri Development - Landscape Package IS18 - FOR CONSULTATION.pdf
 - i. Planning Summary.pdf
 - j. Waitiri Project Fast-track Application Memo.pdf
- 3.2. In addition, the following external documents were considered as part of my review:
- a. Application for the Kowarau Gibbston Dark Sky Park to Dark Sky International (version 6.0 16-Apr-2024)
<https://darksky.app.box.com/s/q39pyq7dhi6ytehwI9ay2wt2o1scv2iv>
 - b. 2025 Annual report of the Kowarau Gibbston Dark Sky Park to Dark Sky International,
<https://darksky.app.box.com/s/53q3u0rkghjm2xh7lz6ktan0oo78zt6f/file/2147881748686>
 - c. QLDC District Plan, specifically the sections regarding the Gibbston Character Zone (GCZ) and the Gibbston Valley Resort Zone (GVRZ).
 - d. Southern Light: Part One – A Lighting Strategy (QLDC, March 2017)
 - e. Southern Light: Part Two – Technical Specification (QLDC, May 2025)
 - f. NZTA M30 Specification and Guidelines for Road Lighting (Aug. 2014)
 - g. AS/NZS 4282:2023 Control of Obtrusive Light

- h. Previous Fast Track Submissions in the Gibbston Valley, specifically FTA345 – Gibbston Village, which contained a Memorandum on Dark Sky Controls (345.25)
- i. Memorandum Of Understanding (MOU) between QLDC and the Kawarau Gibbston Dark Sky Park (March 2024)
- j. Schamhart et al., "Detection rates of long-tailed bats decline in the presence of artificial light." New Zealand Journal of Zoology, Vol 54, 2024, <https://doi.org/10.1080/03014223.2023.2245760>
- k. E. Cieraad and B. Farnworth, "Lighting trends reveal state of the dark sky cloak: light at night at its ecological impacts in Aotearoa New Zealand." New Zealand Journal of Ecology, 2023 47(1): 3559. <https://doi.org/10.20417/nzjecol.47.3559>
- l. S. Wallner & M. Kocifaj, "How far does city light travel? Multi-wavelength analysis reveals urban illumination reaches natural darkness hundreds of kilometres away" <https://doi.org/10.13140/RG.2.2.29323.35360>

4. Dark Sky Park

- 4.1. The Kawarau Gibbston Dark Sky Park ("the park" or "Dark Sky Park") was approved by DarkSky International following a rigorous application process in 2024 and became one of only 10 certified dark sky locations in New Zealand. To gain approval the park was required to submit documentation to an international panel regarding the quality of the dark skies, the ongoing public access to the area, and that legal protections were in place to protect the dark qualities of the area in the future. Furthermore, the park submits an annual report showing that the park continues to meet these criteria or risk losing its status. Dark sky parks benefit from the international recognition and visibility that being listed with Dark Sky International provides and the field of "astrotourism" has grown and flourished from the many visitors who seek out certified parks.
- 4.2. The approved Dark Sky Park boundaries are shown below in Figure 2. The application for the park and its subsequent annual report show that the current sky brightness in the park ranges between 21.88 to 20.85 mag/sq.arcsec. 21.88 mag/sq.arcsec would place the sky within the park among some the darkest sites in the world, while 20.85 mag/sq.arcsec is indicative of a site in a rural area with some low-level light pollution. This level of sky brightness allows for a stunning view of the stars and galaxy where numerous faint objects can be discerned by the unaided human eye and well-known stellar objects, such as Matariki, can be easily viewed.
- 4.3. Light pollution in the area can also be measured through polar orbiting satellites through a sensor known as VIIRS (Visible Infrared Imaging Radiometer Suite). VIIRS data is updated regularly and can be accessed via the web (see e.g. <https://www.lightpollutionmap.info>). As can be seen in Figure 1 below, the Gibbston Valley and the locations of the five sites mentioned in this Fast Track referral application lie in a region of very low light pollution between the brightly illuminated regions of Queenstown and Cromwell. Unsurprisingly, this was a major reason cited by the Dark Sky Park in their successful application and the reason for the borders of the park shown in Figure 2. Four of the five sites in this Fast Track referral application lie within

or immediately adjacent to the Park's boundaries, and even the most distant site to the east (Kūrae, marked with pin 1) would probably be visible from within the park since it lies at an elevated location. Even light sources from development outside of the dark sky park can have a detrimental effect on the dark skies within the park since low levels of light can be easily seen from about 1km away, while brighter sources from a larger city have impacts over 100km away¹. Therefore, in order to preserve the character of the dark sky park, it is my opinion that lighting restrictions would need to be in place for typical residential light sources within at least 1-2 km of the park boundaries.



Figure 1: VIIRS Data from 2024 with approximate locations of the five sites in this Fast Track proposal marked with numbered pins. The bright sources to the west (Queenstown) and east (Cromwell) are heavily light polluted, but in the Gibbston Valley there is no measurable pollution except for a small spot (marked $0.60 \text{ nW/cm}^2 \cdot \text{sr}$) which is coincident with the location of the Gibbston Valley Resort.

¹ See e.g. S. Wallner & M. Kocifaj, “How far does city light travel? Multi-wavelength analysis reveals urban illumination reaches natural darkness hundreds of kilometres away” <https://doi.org/10.13140/RG.2.2.29323.35360>

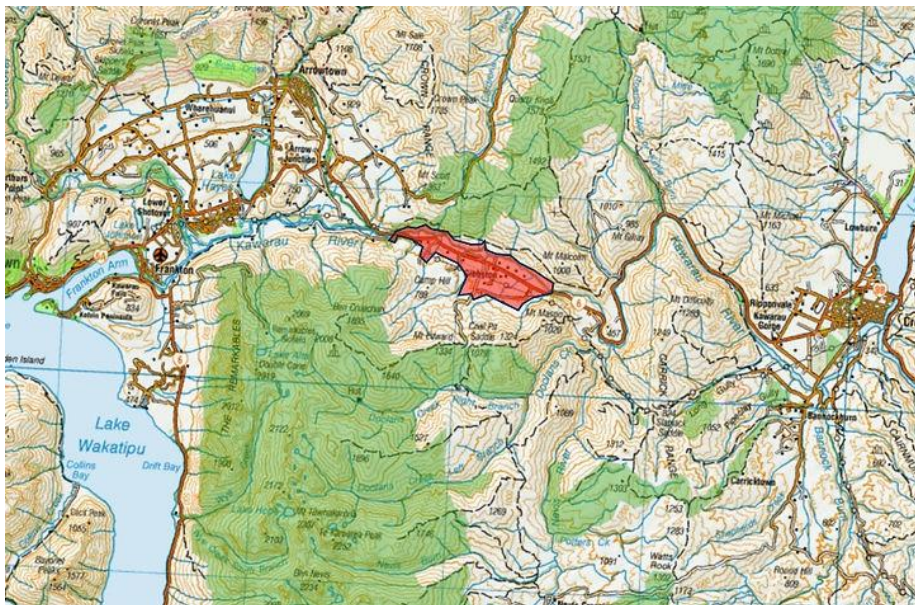


Figure 2: Location of the Dark Sky Park (in red) as approved by Dark Sky International and overlaid on a topographic map at approximately the same scale as Figure 1. For reference, the boundaries start on the west at the Kāwharā Gorge Suspension Bridge (also known as the Bungy Bridge) near SH6 and extend to Nevis Bluff in the east. The northern boundary is along the Kāwharā River and the southern boundary is along the Gibbston Back Road and then as shown above.

5. Existing regulatory requirements

5.1. The QLDC district plan has a number of clauses that are particularly relevant to dark skies in the Gibbston Valley. This includes policies and related rules and assessment matters in the zones of the proposed sites, being the Gibbston Character Zone (relevant to Mānia Glenlee Glenroy; Karapuke Drystone; Taiheke Riverside and Kūrae Waitiri), Rural Zone (relevant to Ara Tihi Eastburn; Mānia Glenlee Glenroy; Kūrae Waitiri), and Wakatipu Basin Rural Amenity Zone (relevant to Ara Tihi Eastburn). Policies include:

- a. Gibbston Character Zone, Policy 23.2.1.11 states “The location and direction of lights do not cause glare to other properties, roads, public places or degrade views of the night sky.”
- b. Rural Zone, Policy 21.2.1.5 states that “Have regard to the location and direction of lights so they do not cause glare to other properties, waterbodies, roads, public places or views of the night sky”, and Policy 21.2.10.4 states “Ensure the scale and location of buildings, noise and lighting associated with commercial recreation activities are consistent with the level of amenity in the surrounding environment.”
- c. Wakatipu Basin Rural Amenity Zone, Policy 24.2.1.16 states “manage lighting so that it does not cause adverse glare to other properties, roads or public places, or degrade views of the night sky”.

5.2. In my view, the application should adhere to these directions, but there is insufficient detail in the proposal to be sure. Hence, it is worth understanding the current quality of the night sky in this area and the lighting controls that would be necessary to preserve it as detailed in the following sections.

5.3. The QLDC Southern Light Part Two – Technical Specifications (a document incorporated by reference into the QLDC proposed district plan) notes in section 4 that one of the applicable standards is AS/NZS 4282: Control of the

obtrusive effects of outdoor lighting. This is particularly relevant since dark sky parks are listed in AS/NZS 4282 as a reason to designate an area as an Environmental Zone A0, and when combined with the intrinsic darkness of the site it is my opinion this would be an appropriate environmental zone designation for the Dark Sky Park and the areas within 1-2km of it. In AS/NZS 4282 Table 3.2, Environmental Zone A0 requires light technical parameter limits of a maximum of zero lux of vertical illuminance and a zero upward light ratio; Table 3.3 requires a luminous intensity per luminaire of as close to zero as practicable without impacting safety; and Table 3.4 requires a maximum average luminance of surfaces of 0.1 cd/m².

6. Risks from this development

- 6.1. In Appendix D of the referral application, the applicant provides numerous housing typologies which give a rough sense for the types of buildings that might be constructed within each of the five development areas. While a great deal of detail is given about floorplans, the only details about outdoor lighting available are those that can be guessed at from the outside 3D renderings. Most of the images are rendered as daytime views, but the few that are at dusk show outdoor lights pointed both upwards and downwards (see e.g. drawing A118). These upward pointing lights will be problematic given the site's recognition as a Kawarau Gibbston Dark Sky Park and will likely violate AS/NZS 4282 since they will create upward illuminance that exceeds zero lux, and even the downward pointing lights will have to be carefully managed since reflections and spill light may become directed upwards or sideways and exceed the limits in the standard. Furthermore, without careful education and management, lighting fixtures that might have been compliant when originally installed can be easily modified by residents to hold brighter bulbs or be pointed in directions that cause glare to neighbouring properties.
- 6.2. In Figure 3 below, a simulation of the night sky in the Gibbston Valley (generated by lightpollutionmap.info based on the VIIRS 2025 data) clearly shows the light domes due to Queenstown to the west and a smaller light dome due to Cromwell to the west. However, the bulk of the sky falls within a range of 21.8 to 21.9 mag/sq.arcsec which is indicative of an excellent dark sky site. This supports the assessment that according to AS-NZS 4282:2023 this area would fall under Environmental Zone A0.

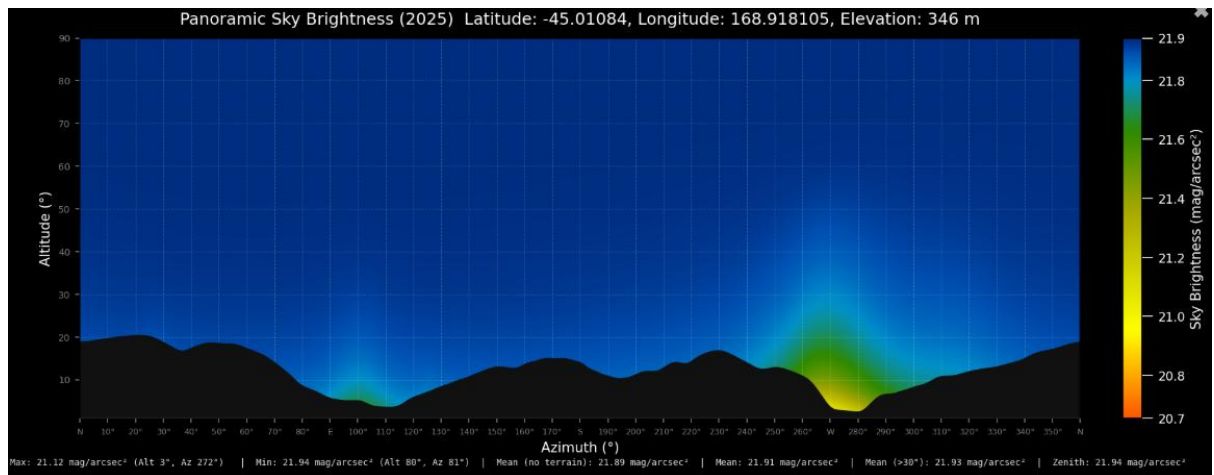


Figure 3: Simulation of the night sky in the Gibbston Valley from lightpollutionmap.info based on current light pollution sources as detected by VIIRS in 2025. On the left (toward the east in azimuth) is a small light dome due to Cromwell, and on the right (to the west in azimuth) is a larger light dome due to Queenstown. Outside of these two light domes, the bulk of the sky falls within the range of 21.8 to 21.9 mag/sq.arcsec which is indicative of an excellent dark sky site.

6.3. The increased development spread across five areas included within the referral application would require additional street lighting. Currently the roads in the Dark Sky Park are mostly unlit with (according to the Park's 2023 application) just two street lights in the area. While the existing street lights installed by NZTA are compliant with dark sky requirements, additional lights would need to be as well. Even compliant lights add some small amount of light pollution to an area, and as their numbers increase eventually the intrinsic dark sky character of the area will erode.

7. Discussion

7.1. While it is not connected to this application, it is notable that a previous referral application in the Gibbston Valley (FTA345) made under the FTAA included a memorandum explicitly volunteering a set of dark sky controls to be applied to their proposed project even though the project was at an early stage. While I will not comment on the rigor of their voluntary controls, they say they did this to offer reviewers "assurance that its Application will fully conform to the Dark Sky Park objectives." In contrast, the application here only offers the much weaker assurance that they will produce "a detailed lighting strategy ... as part of subsequent design stages." This future and only vaguely defined plan, is intended to "adhere to the Dark Sky Park requirements to protect the Park from unnecessary light spill." Without adequate details of the restrictions the proposer intends to impose on their lighting emissions, there is a high risk that this development will cause a substantial negative impact on the light pollution in the area.

7.2. In addition to impacting the Dark Sky Park, light pollution can produce unintended consequences for native fauna. Appendix H of the application notes that it is unlikely that any bats are present in the area (the nearest known population is approximately 40km away around Glenorchy), but increasing light pollution will likely prevent any new populations of bats from settling in the

area². Appendix H goes on to say that a number of species of native birds including the New Zealand pipit and the New Zealand falcon along with native lizards including the korero gecko, Roys Peak gecko, Kawarau gecko, Lakes skink, and McCann's skink were found to be present in the area. Light pollution is well known to impact the life cycles of birds and reptiles³ and strict controls to keep extraneous light pollution to a minimum will help not just the humans looking at the stars, but also the animals living their life in the vicinity of the proposed development.

- 7.3. In Appendix K of the application, the minutes for the Meeting of April 7, 2026 noted that the applicant was advised to “consider the Dark Sky Park – ensure a lighting expert is involved.” Other than blanket assurances in the proposal that dark skies will be considered at a later stage and that the Dark Sky Park is important to them, I see no evidence that a lighting expert has been involved in this project or that consultation with the leadership of the Dark Sky Park has occurred. This is deeply concerning since it is easiest to incorporate good lighting design at the earliest stages of project planning, and much harder to correct a bad design at a later stage in the process.

8. Interactions between the Dark Sky Park and outside organisations

- 8.1. The Kawarau Gibbston Dark Sky Park notes in their application and annual report that they operate a voluntary lighting certification program which 45% of the households in the area have joined. Similarly, they note that they would prefer to work collaboratively with new and existing residents and businesses to mitigate lighting impacts rather than rely on strict enforcement of the regulations. While I appreciate that the applicant states that they will work with the Dark Sky Park in the future, a collaborative relationship would imply that they should have proactively interacted with the Dark Sky Park even at this early stage of the application. As far as I can tell from the documentation provided, they have not.
- 8.2. In contrast, when the Kawarau Gibbston Dark Sky Park was created in 2024, QLDC and the Kawarau Dark Skies Project Team entered into an MOU to establish a framework of collaboration. In addition to reiterating roles and responsibilities of the partners, the MOU created an opportunity for regular meetings between the parties to discuss future development, concerns, and common issues. A major development, such as the one discussed in this Fast Track referral application, is exactly the sort of topic that could benefit from substantive discussion, thoughtfulness, and caution that the MOU recommends. What is missing from the MOU is an incentive for developers to interact with the Dark Sky Park during the early stages of a proposal for areas in or near the Park, since any evidence of interaction, or even better, a letter of support from the Dark Sky Park would have been a welcome addition to this proposal.

² see e.g. Schamhart et al., “Detection rates of long-tailed bats decline in the presence of artificial light.” New Zealand Journal of Zoology, Vol 54, 2024

³ see e.g. E. Cieraad and B. Farnworth, “Lighting trends reveal state of the dark sky cloak: light at night at its ecological impacts in Aotearoa New Zealand.” New Zealand Journal of Ecology, 2023 47(1): 3559

9. Conclusion

- 9.1. Without detailed lighting information from the applicant, it is impossible to completely assess the impacts of this development on the dark skies of the area. However, based on the limited information provided, it is highly likely that this development will degrade the quality of the dark skies within the Gibbston Valley. The applicant indicates that they will create a lighting strategy at a future stage of the development of this project, but I would recommend they commit in advance to make their development compliant with AS/NZS 4282 Environmental Zone A0 standards. In addition, I recommend that they proactively discuss their plans with their neighbours in the Dark Sky Park and address their concerns well in advance of any further design or construction.

Attachment: AS/NZS 4282:2023 Australian / New Zealand Standard Control of the Obtrusive Effects of Outdoor Lighting

Ridgeburn Fast-track Project

Integrated Transport Assessment (ITA) Scope

**Prepared by QLDC in consultation with NZTA, for the purposes of Ridgeburn FTSA. This scope is agreed between NZTA and QLDC*

1. Basis for this Scope: Methodology

This scope has been informed by transport matters identified by Queenstown Lakes District Council (QLDC), NZTA Waka Kotahi, and transport specialists engaged by both QLDC and NZTA in relation to Ridgeburn proposal. Most importantly, the scope has been prepared with reference to the principles and requirements set out in:

- **NZ Transport Agency Waka Kotahi, NZTA Integrated Transport Assessment Guidelines** (Research Report 422); and
- **Auckland Transport (AT) Integrated Transport Assessment Guidelines (Version 2, 2025)**, which provide more recent guidance for the assessment of significant and complex development proposals, such as the Ridgeburn development.

QLDC and NZTA have had specific regard to **Table 6.3 of NZTA Research Report 422** (appended to this scope), which provides guidance on the appropriate content of simple, moderate, broad and extensive Integrated Transport Assessments. Having regard to the scale, strategic implications and infrastructure dependencies associated with the Ridgeburn proposal, QLDC and NZTA consider that the proposal falls within the category of development for which an **extensive ITA** is appropriate.

In addition, the scope has also been informed by more recent Auckland Transport ITA Guideline. Extensive ITAs for development proposals of this nature are recommended in the AT Guidance, particularly where they are *large-scale greenfield developments, occur outside planned growth areas, rely on infrastructure that is not yet programmed or funded, or depend on future public transport provision and travel behaviour change assumptions*.

It is important that the Panel recognises that the Ridgeburn proposal significantly elevates the assessment threshold. In particular, it is not appropriate to rely on optimistic assumptions regarding future public transport services, travel mode shift, or the delivery of third-party infrastructure unless these are supported by robust evidence and demonstrated implementation pathways.

In determining the appropriate scope, QLDC and NZTA have therefore had particular regard to the assessment approaches set out in both the NZTA and Auckland Transport guidelines. These approaches are commonly applied to proposals that exhibit one or more of the following characteristics, all of which are relevant to the Ridgeburn application.

Characteristics identified in NZTA and AT guidance for Extensive ITAs	Ridgeburn
Major greenfield developments	✓
Out-of-sequence development	✓
Development occurring outside planned growth areas	✓
Reliant on infrastructure that is not currently funded, programmed, or committed	✓
Dependent on future public transport services and mode shift assumptions	✓
Transport effects extending beyond the immediate site and affecting strategic transport corridors and regional movement patterns	✓

2. Purpose

This document has been prepared in response to the Panel Convenor's direction to file and send the applicant the scope and information requirements of the Integrated Transport Assessment (ITA) that QLDC and NZTA consider is necessary for the Ridgeburn development proposal.

Given the scale of the proposal, its location outside planned growth areas, its reliance on strategic transport corridors, and its potential to generate transport effects well beyond the immediate locality, the ITA should comprise a comprehensive assessment of transport effects across all modes and at local, district and regional scales.

The assessment should extend beyond a traditional site-access or traffic impact assessment and provide sufficient information for decision-makers to understand:

- The immediate and future transport effects of the proposal.
- The infrastructure and transport services required to support the development.
- Funding, delivery and ongoing operational responsibilities relating to proposed transport system upgrades.
- The feasibility and deliverability of public transport and active mode assumptions.
- Implications for the wider SH6 and SH6A corridor and regional transport network.

- Strategic consistency with regional growth and transport objectives.
- Infrastructure dependencies and delivery risks.
- The extent to which adverse transport effects can be avoided, remedied or mitigated.
- Any residual effects that would remain following mitigation.

The ITA should ultimately provide the Expert Panel with sufficient information to determine whether the proposal represents an efficient, safe, accessible, resilient and sustainable transport outcome for the wider Whakatipu Basin and regional transport network.

3. Extent of Assessment Required

Consistent with NZTA and Auckland Transport guidance, the proposal is assessed as a major out-of-sequence development, requiring an extensive ITA that considers the extent of assessment necessary to evaluate scenarios where anticipated transport interventions, public transport services, or mode-shift outcomes are delayed, modified, or not realised.

Therefore, the extent of assessment required is determined by the degree to which the proposal:

- Requires transport infrastructure that is not currently programmed or funded.
- Relies on public transport services that are not currently operating or funded.
- Relies on future mode-shift outcomes that have not yet been demonstrated.
- Accelerates the need for strategic transport investment.
- Creates dependencies on NZTA, QLDC, ORC, or other third parties.
- Generates transport effects extending well beyond the site and local road network.
- Creates risks associated with infrastructure delivery timing, funding and implementation.

4. Strategic and Policy Context

The ITA shall assess consistency with:

- Government Policy Statement on Land Transport.
- NZTA investment and corridor strategies.
- Queenstown Lakes Spatial Plan.
- Queenstown Lakes Proposed District Plan.
- Transport Network Plan.
- Strategic Network Plan.
- Otago Regional Public Transport Plan.
- Relevant NZUP transport projects.

- Other adopted transport and growth strategies.

The assessment shall specifically identify where the proposal aligns with, or departs from, planned growth and transport investment strategies and the consequences arising from those departures.

5. Regional Policy and Strategic Outcomes Assessment

Given the scale of Ridgeburn and its potential effects on regional movement, the ITA shall include a strategic assessment of **whether the proposal contributes positively to regional transport outcomes.**

Economic Development and Network Efficiency

The ITA shall recognise that transport effects form part of the assessment of net regional benefit under the Fast-track Approvals Act. Where regional economic benefits are claimed, the assessment should also identify and quantify material transport dis-benefits arising from increased congestion, reduced travel reliability, diminished accessibility and increased infrastructure costs. Consistent with cost-benefit assessment principles, the same geographic area should be used when assessing both benefits and dis-benefits to ensure a balanced understanding of net regional outcomes.

The ITA shall assess:

- Effects on travel times and reliability including for public transport movements.
- Effects on freight movements.
- Effects on tourism movements.
- Congestion costs imposed on existing users.
- Vehicle kilometres travelled.
- Network efficiency impacts.
- Infrastructure costs generated by the proposal.

Particular consideration shall be given to strategic movements between:

- Queenstown and Cromwell.
- Cromwell and Gibbston.
- Queenstown and Arrowtown.
- Queenstown and Wanaka.
- Queenstown Airport and surrounding growth areas.

Particular consideration should also be given to the cumulative effects of (additional) development-generated traffic on the SH6 corridor between Lake Hayes, the Shotover Bridge, and Frankton. This assessment should take account of existing and anticipated developments that will rely on the same strategic transport infrastructure, including the recently approved Simplicity Living referral (approximately 1,100 residential units), the Homestead Bay development, which is reliant on the BP Intersection, and other listed projects under the Fast-Track Approvals Act, including the NZSki Doolans Basin expansion, the Gibbston development, and additional developments within the Gibbston area, such as the Waitiri Project (that is currently at the referral stage).

Collectively, these developments are likely to generate additional travel demand within a corridor already experiencing significant capacity constraints, with the potential for resulting congestion effects to extend beyond the immediate network and give rise to broader economic impacts.

Safety and Security

The ITA shall assess:

- Safe System outcomes.
- Vulnerable road user safety.
- Public transport safety.
- Construction traffic safety.
- Network resilience.
- Emergency access.
- Personal security associated with transport facilities.

Access and Mobility

The ITA shall evaluate accessibility to:

- Employment.
- Education.
- Healthcare.
- Retail and commercial services.
- Community facilities.
- Public transport services.

Accessibility outcomes shall be assessed for:

- Private vehicle travel.
- Public transport.
- Walking.
- Cycling and other users (such as, horse riders)

Sustainability

The ITA shall assess:

- Vehicle kilometres travelled.
- Transport emissions.
- Energy consumption.
- Public transport viability.
- Active mode opportunities.
- Efficient use of existing infrastructure.
- Long-term infrastructure servicing requirements.
- Consistency with sustainable growth objectives.

6. Study Area

The primary study area shall include:

- Morven Ferry Road.
- Arrow Junction Road.
- McDonnell Road.
- SH6 (particularly East of Shotover Bridge) and SH6A
- All side-road intersections connecting to SH6.

7. Existing Transport Environment

The ITA shall establish existing conditions relating to:

- Traffic volumes.
- Intersection performance.
- Travel times.
- Travel time reliability.
- Queue lengths.
- Freight movements.
- Public transport performance.
- Walking and cycling infrastructure.
- Parking demand.
- Network resilience.
- Safety performance and crash history.

8. Development Description

The ITA shall describe:

- Proposed land uses.
- Population and dwelling yields.

- Visitor accommodation.
- Education activities.
- Employment generation.
- Development staging.
- Internal street network.
- Active transport facilities.
- Parking provision.
- Public transport facilities.
- Construction programme.

9. Trip Generation and Travel Demand

The ITA shall provide robust justification for all trip-generation assumptions.

Sensitivity testing shall be undertaken for:

- Internal trip capture.
- Pass-by trips.
- Remote working.
- Carpooling.
- Reduced vehicle ownership.
- Public transport uptake.
- Walking and cycling mode share.
- Visitor travel demand.

10. Mode Shift Deliverability Assessment

The ITA shall explicitly test whether proposed behavioural assumptions are realistically achievable. The assessment shall include:

Assumption	Evidence Required
Public transport use	Comparable developments and ORC feedback
Walking mode share	Walking catchment analysis
Cycling mode share	Network quality assessment
Internal trip capture	Land-use interaction analysis
Reduced vehicle ownership	Demographic and market evidence
Carpooling uptake	Evidence from comparable locations

The assessment shall test:

- Optimistic scenario.
- Expected scenario.
- Conservative scenario.
- No mode shift scenario.
- No public transport scenario

11. Transport Model Requirements

A multi-modal transport model shall be developed that is capable of assessing strategic and cumulative transport effects across the SH6/SH6A Eastern Corridor and wider Whakatipu Basin transport network. The model shall be of sufficient scale and sophistication to assess district and regional transport impacts rather than solely local intersection effects.

Model Objectives

The model shall enable assessment of:

- Existing network performance.
- Future network performance with and without Ridgeburn.
- Corridor-wide congestion effects.
- Travel time reliability.
- Queue formation and propagation.
- Regional accessibility impacts.
- Public transport demand and performance.
- Active mode opportunities.
- Infrastructure staging requirements.

Geographic Coverage

The model shall include, at a minimum:

- SH6 from Cromwell through to Frankton.
- SH6A corridor.
- Kawarau Bridge.
- Crown Range Road intersection.
- Arrow Junction Road and Morven Ferry Road intersections.
- Ladies Mile corridor.
- Lake Hayes Road corridor.
- Howards Drive intersection.
- Lower Shotover Road intersection.
- Frankton Road corridor.

- Connections to Arrowtown, Lake Hayes Estate, Shotover Country and Gibbston Valley.

Forecast Scenarios

The model shall assess, at a minimum, the following scenarios:

Current Baseline

- Existing network conditions.
- Existing travel demand.
- Existing public transport operations.

Future Baseline (Without Ridgeburn)

A future network including:

- Committed developments.
- Approved developments.
- Anticipated growth within existing zoned areas.
- New Zealand Upgrade Programme (NZUP) Queenstown Package improvements.
- Planned transport investments.

Future With Ridgeburn

The future baseline scenario plus Ridgeburn traffic demand and associated mitigation measures.

Cumulative Growth Scenario

The future baseline plus:

- Ridgeburn.
- Ladies Mile growth.
- Gibbston Valley growth.
- Cromwell growth.
- Other relevant fast-track proposals and approved developments affecting the SH6/SH6A corridor.

Forecast Years

The model shall assess at a minimum:

Opening Year

The anticipated year in which the first stage of Ridgeburn becomes operational.

Intermediate Year (Indicatively 2035)

Representative of medium-term growth and infrastructure requirements.

Design Horizon Year (Indicatively 2045)

Representative of full build-out conditions and longer-term transport effects.

If staging extends beyond these horizons, additional forecast years may be required.

Sensitivity Testing

In recognition of the proposal's reliance on future transport interventions and behavioural assumptions, the model shall include sensitivity testing for:

Public Transport Sensitivity

- Forecast public transport uptake.
- Reduced public transport uptake.
- No public transport service.

Mode Shift Sensitivity

- Applicant assumptions.
- Conservative mode-share assumptions.
- No mode-shift scenario.

Infrastructure Delivery Sensitivity

- All mitigation delivered.
- Delayed delivery of mitigation.
- Non-delivery of key third-party infrastructure.

Growth Sensitivity

- Planned growth only.
- Planned growth plus Ridgeburn.
- Higher-than-forecast regional growth.

The **most important scenarios** are the "no public transport", "no mode shift", and "delayed infrastructure delivery" scenarios. The current Ridgeburn assessment appears to be heavily dependent on assumptions about future behavioural change and future service provision. It is important that an ITA contributes to the better understanding of not only how the development performs if everything goes perfectly, but also how it performs if those assumptions are not realised.

12. Public Transport Feasibility Assessment

Because public transport forms a key component of the proposed transport strategy, the **ITA shall demonstrate that public transport services are realistic, deliverable, fundable and operationally viable.**

The assessment shall address:

Existing Context

- Current bus services.
- Service frequencies.
- Current patronage.
- Existing service capacity.
- Regional transport plans.

Service Feasibility

Assessment shall consider:

- Direct service options.
- Arrowtown connections.
- Ladies Mile connections.
- Park and Ride integration.
- Demand responsive transport.
- Shuttle services.

Operational Viability

Assessment shall include:

- Travel times.
- Reliability.
- Fleet requirements.
- Driver requirements.
- Turnaround facilities.
- Bus stop infrastructure.
- Road access requirements.

Financial Viability

The ITA shall identify:

- Patronage forecasts.
- Operating costs.
- Fare recovery.
- Subsidy requirements.
- Funding source.
- Responsible agency.

ORC Consultation

The ITA shall document engagement with ORC and identify:

- Whether the service is supported in principle.
- Whether it is included within future service plans.
- Whether funding is available.
- Delivery timeframes.
- Fleet and operational constraints.

Failure Scenarios

The ITA shall assess how the development performs under each scenario:

- No public transport available.
- Delayed implementation.
- Lower-than-forecast patronage.
- Withdrawal of subsidy support.

13. Park and Ride Assessment

The ITA shall assess:

- Proposed Park and Ride facilities.
- Alternative locations near SH6.
- Ladies Mile opportunities.
- Capacity requirements.
- Operational requirements.
- Funding arrangements.
- Long-term management responsibilities.

14. Active Modes Assessment

The ITA shall assess:

- Internal walking and cycling facilities.
- Trail network integration.
- Arrow Junction Road connections.
- Arrowtown Trail crossings.
- Safety and comfort.
- Accessibility to public transport.
- End-of-trip facilities.

15. Morven Ferry Road and Arrow Junction Road Assessment

A detailed assessment shall evaluate:

- Road geometry.
- Pavement condition.

- Capacity.
- Safety.
- Heavy vehicle suitability.
- Construction traffic effects.
- Maintenance implications.
- Walking and cycling provision.

16. Road Safety Assessment

A Safe System assessment shall be undertaken for the **Study Area described in Section 6** of this document.

17. Construction Traffic Assessment

The ITA shall assess:

- Construction vehicle volumes.
- Workforce travel.
- Construction routes.
- Temporary traffic management.
- Worker parking.
- Enabling works.
- Road upgrade requirements prior to construction.

18. Network Resilience and Emergency Access

The ITA shall assess:

- Incident management.
- Alternate routes.
- Road closures.
- Natural hazards.
- Emergency access.
- Evacuation capability.
- Dependence on SH6 and Morven Ferry Road.

19. Infrastructure Funding Responsibility Assessment

The ITA shall identify all infrastructure required to mitigate transport effects and clearly allocate responsibility for funding and delivery.

Infrastructure shall be categorised as:

Category A – Direct Development Mitigation

Infrastructure required solely due to Ridgeburn.

Category B – Shared Growth Infrastructure

Infrastructure supporting multiple growth areas.

Category C – Strategic Network Infrastructure

Infrastructure required for wider network operation and resilience.

For every mitigation measure the ITA shall provide:

- Infrastructure item.
- Estimated cost.
- Delivery agency.
- Funding agency.
- Trigger for delivery.
- Land requirements.
- Consents required.
- Funding risk.
- Consequences of non-delivery.

The ITA shall explicitly identify any infrastructure funding gap arising from the proposal and explain how that gap will be addressed.

20. Mitigation, Staging and Delivery Framework

The ITA shall identify:

- All mitigation measures.
- Concept designs.
- Delivery triggers.
- Development staging requirements.
- Responsible agencies.
- Funding sources.
- Land requirements.
- Consent requirements.

For each mitigation measure the ITA shall identify the consequences of delayed delivery or non-delivery.

21. Transport Risk Assessment

The ITA shall include a formal transport risk assessment that assesses the likelihood and consequences of transport-related risks.

Risk	Likelihood	Consequence
Public transport not delivered	High	Major
Public transport patronage below forecast	High	Major
Required SH6 upgrades unfunded	High	Major
Strategic corridor congestion worse than forecast	Medium	Major
Safety deterioration at key intersections	Medium	Major
Morven Ferry Road unable to accommodate forecast demand	Medium	Major
Walking and cycling uptake not achieved	High	Moderate
Third-party infrastructure delayed	High	Major
Land acquisition constraints	Medium	Major
Emergency access limitations	Medium	Major
Infrastructure funding shortfall	High	Major
Regional economic costs exceed forecast benefits	Medium	Major

For all High and Extreme risks, the ITA shall identify:

- Risk owner.
- Monitoring requirements.
- Trigger points.
- Contingency measures.
- Funding responsibility.
- Residual risk.

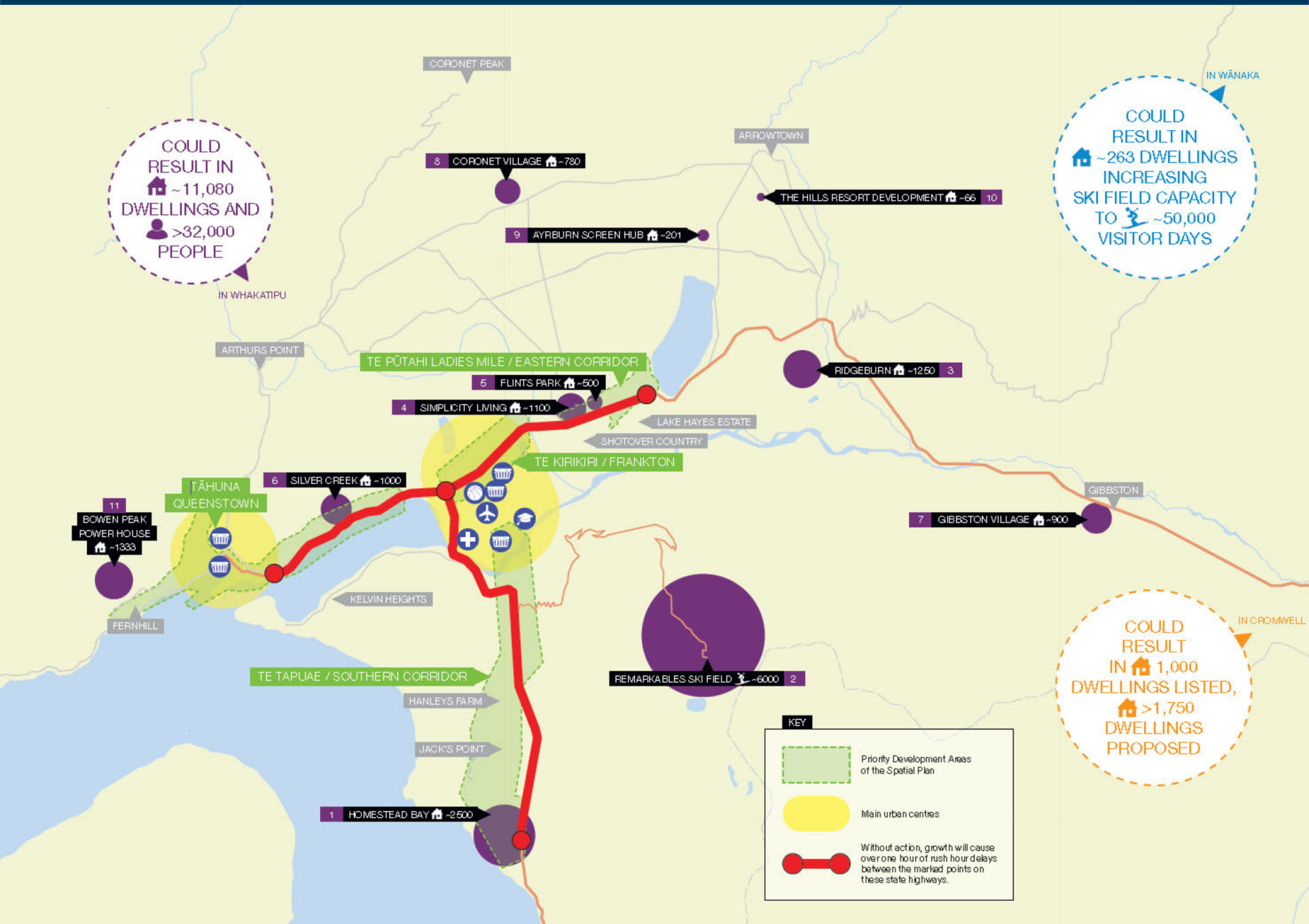
22. Residual Effects

The ITA shall clearly identify:

- Capacity effects and safety effects that remain after mitigation.
- Public transport and funding uncertainties.
- Infrastructure dependencies.
- Regional network effects.
- Effects that cannot reasonably be mitigated.

Attachment: Table 6.3 of NZTA Research Report 422

Queenstown Lakes- Cumulative effects of fast track consents



A network approach to fast tracking & growth is required

Housing Growth & Fast track consenting

Fast-track consenting works best when it follows a clear plan. Without looking at the overall effects on roads, schools, and services, it can end up costing more and slowing things down.

In response to significant growth in residents, visitors, housing and commercial development Queenstown Lakes **has consistently approved the highest number of new residential housing consents per 1,000 residents in NZ.** With the total number of building consents approved only surpassed by Auckland and Christchurch.

QLDC already has plans in place to support growth where it makes sense. The District and Spatial Plans allow for **around 108,000 new homes**, but only about 24,000 are projected to be needed by 2055 – roughly a quarter of what's already zoned. QLDC has used every planning tool available to enable a pipeline of housing and a range of housing choices.



Whakatipu Roding Network is already constrained from existing developments

The Queenstown Lakes road network is already under heavy pressure and congestion from existing development and growth. **All major growth routes are on state highways, so NZTA is responsible for the planning & delivery upgrades.** The busiest routes run between Te Pūtahi Ladies Mile, the Southern Corridor, Frankton, and Queenstown Town Centre. **A peak times all these routes are significantly congested. Without intervention growth is forecasted to result in greater than one hours delays on these key routes.**

People use these roads to reach work, school, the hospital, shops, and the airport – almost all in Frankton or Queenstown. **Frankton is the centre of the urban area and transport network, making it a key destination and connection point.** QLDC and its Way to Go partners have developed plans to manage growth, but many **projects haven't gone ahead due to limited funding. Central government money hasn't come through the usual channels, despite strong plans and business cases.** The main investments so far have come from special programmes like CIP, NZUP, and the Queenstown Package. As a result, planned upgrades are falling further behind schedule.

A different approach to transport planning and investment is required

- **QLDC is one of the areas most affected by fast-track.** Despite existing plans already allowing for major growth, more than 11,000 extra homes are proposed in Queenstown Lakes and 2,500 in Cromwell through fast-track.
- Fast-track applications are assessed **one by one**, not as a whole. This means there is **no proper assessment of the combined impacts** on roads, public transport, schools, health, and other services.
- **Key state highways and bridges** (SH6A, Shotover Bridge, Kawarau Bridge) are **already at capacity** with existing development. The fast-track proposals don't address these transport limits. The network impacts are not being adequately considered.
- **Social infrastructure like schools needs much higher priority & investment.** For example, fast-track developments along Te Putahi / eastern corridor would bring forward the need for a new primary school and a high school. Planning must look at the whole picture.
- **Central and local government need better ways** to fund and build infrastructure where and when it's needed. Right now, infrastructure is **not keeping up with growth** – and this will get worse if development happens in the wrong places.
- **Zoning or approving fast-track developments alone won't deliver affordable housing.** Policies like **inclusionary zoning** are needed so new developments actually include affordable homes.

AS/NZS 4282:2023



Australian/New Zealand Standard™

Control of the obtrusive effects of outdoor lighting



AS/NZS 4282:2023

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Consumers Federation of Australia
Department of Climate Change, Energy, the Environment and Water
Energy Networks Australia
Engineers Australia
IES: The Lighting Society
Institute of Public Works Engineering Australasia
Lighting Council Australia
Lighting Council New Zealand
Municipal Association of Victoria
Outdoor Media Association
University of Sydney
Waka Kotahi-NZ Transport Agency

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Australian/New Zealand Standard™

Control of the obtrusive effects of outdoor lighting

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Preface

This Standard was prepared by the Joint Standards Australia/New Zealand Committee LG-010, Obtrusive Effects of Outdoor Lighting, to supersede AS/NZS 4282:2019.

The objective of this document is to provide a basis for assessment of the potential obtrusiveness of the effects from an outdoor lighting system. However, it should be noted that the potentially obtrusive effects of the lighting will normally be only one of a number of environmental and ecological considerations that will need to be addressed during a development assessment. Conformance to this document, i.e. conformance to the limits for the various light technical parameters defined in this document, will therefore not necessarily be the sole basis for the approval of particular development proposals.

The following are significant changes between this edition and the previous edition:

- (a) The assessment of lighting of lit vertical surfaces including internally and externally illuminated signs, façades or objects has been modified.
- (b) The position of the calculation planes has been clarified, changed to better define the difference between current and future dwelling locations and also provide a buffer zone for environmentally sensitive areas.
- (c) This document does not apply to public lighting unless specified by the relevant authority. Limits have been included in [Section 4](#) of this edition when required. Thus, obtrusive light can be controlled in areas where it might be seen as a problem without the need to calculate the impact of every public lighting luminaire.
- (d) Environmental receivers are now considered under the Standard. This change recognizes the impact that artificial light at night can have on plants, animals and ecosystems. The limits identified in [Tables 3.2](#) to [3.4](#) apply to environmental receivers as well as human receivers. Conformity to this document will benefit environmental receivers through a reduction in spill light, but will not necessarily ameliorate impacts where protected species and communities are located on, or adjacent to the site.
- (e) The application of environmental zones has been clarified; it considers the ambient environment for the lighting system and/or each affected property as appropriate.
- (f) The assessment of sports venues illuminated for TV coverage has been modified.
- (g) The veiling luminance [Equation 3.2](#) has been changed.

Formally recognized sensitive locations, such as Siding Spring Observatory (Australia) and Aoraki Mackenzie International Dark Sky Reserve (New Zealand) may have requirements in addition to this document. This document does not address all the requirements that may be necessary for the lighting system to facilitate specific activities for which it is designed. Reference should be made to the appropriate Standard, such as AS/NZS 1158 series for the lighting for roads and public spaces, AS/NZS 1680.5 for outdoor workplace lighting and the AS 2560 series for sports lighting.

Where environmental impacts are likely, reference should be made to the following documents as applicable:

UN Environment Programme Convention on the Conservation of Migratory Species of Wild Animals. Light Pollution Guidelines: UNEP/CMS/Resolution 13.5/Annex.

National Light Pollution Guidelines for Wildlife: Including marine turtles, seabirds and migratory shorebirds.

NOTE The United Nations document is based on the Australian document.

The lighting system may also be subject to approvals of other authorities such as aviation, road safety, and environmental approvals, that are additional to the requirements of this document.

The terms “normative” and “informative” have been used in this document to define the application of the appendix to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

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Introduction

This document provides methods and limits to control the obtrusiveness of outdoor lighting that may be spilling from a lighting system.

With any outdoor lighting system, it is not always possible to contain all light within the boundaries of the property on which it is installed. Some light may spill outside the property boundaries, either directly or by reflection. The determination of when the spill light becomes obtrusive to others is difficult since both physiological and psychological effects are involved. Irrespective, spill light should be limited where possible within the limits of the lighting function.

Government plays an important role in controlling the obtrusive effects of outdoor lighting through the approvals process, and in resolving neighbourhood disputes involving residents who experience discomfort or annoyance from nearby outdoor lighting systems. Government authorities may apply restrictions on the frequency of use and hours of operation of outdoor lighting, and on the levels of light spilled beyond the boundaries of the subject site.

Several aspects of potential obtrusiveness are considered, including the light falling on surrounding properties, the brightness of luminaires in the field of view of nearby residents, the glare to users of adjacent transport systems, the effects on astronomical observations and the impact on environmentally sensitive areas. For the control of these effects, limiting values of the light technical parameters have been developed taking account of the following:

- (a) The level of lighting consistent with the development zoning approved for the area.
- (b) The times that the proposed lighting is to operate.
- (c) The type of lighting technology available to light the task.
- (d) The use of readily available and easily understood technical data on the lighting systems that can easily be verified at the design and assessment stages.

These criteria have been utilized to ensure that the document is both credible to the interested parties and pragmatic in application.

Limiting values of illuminance at windows and of the intensity of bright light sources, necessary to satisfy the large majority of people as being at all times unobtrusive, are rather low. Furthermore, these values can easily be exceeded with conventional lighting practice, especially if the area of activity being lit is large and the required light level is relatively high.

There are potentially conflicting requirements for dark-hours activity and the maintenance of amenity and environmental integrity, therefore, two sets of limiting values are given dependent on the levels of lighting already in the area. One, with higher values, is for application outside the curfew time set by local government and the other, with lower values, is for application during the curfew period. Most outdoor sports lighting systems likely to be subject to this document are expected to operate only outside the curfew period.

The less restrictive values are predicated on dark time activity taking place while giving passive recipients of spill light relief from it being excessively obtrusive. The limiting values are based on the use of conventional lighting technology but with good practice being used in the selection of appropriate lighting levels, luminaires and aiming practices.

The more restrictive values, applying during the curfew period, are predicated on the maintenance of amenity and environmental integrity being the dominant considerations. The spill light at these times should be such that it will not be obtrusive to the large majority of recipients. To achieve this goal the need for the proposed lighting and its operation during the curfew period should be considered in the first instance. If the lighting is required to be operational during the curfew period, then careful attention needs to be given to the limitation of spill light. The type of luminaires (i.e. light distribution) and their specific locations and aiming angles, and the need for the fitting of louvres, baffles or shields needs careful evaluation.

Although public lighting is not within the scope of this document, light technical parameter limits have been included where the relevant authority considers that the extent and level of obtrusive light should be limited. The limits recognize that such lighting is provided to facilitate safety and security for the public at large.

The limits identified in this document have not been derived to address specific species or ecological community needs and so conformance with this document may not be sufficient to meet environmental regulation.

Australian/New Zealand Standard

Control of the obtrusive effects of outdoor lighting

Section 1 Scope and general

1.1 Scope

The objective of this document is to provide a common basis for assessment of the potential obtrusiveness of the effects from the lighting of developments that involve the provision of outdoor lighting. It includes limits for the relevant light technical parameters to control these effects. As the obtrusive effects of outdoor lighting are best controlled by appropriate design, this document is primarily applicable to new systems. This document specifically refers to the potentially adverse effects of outdoor lighting on nearby residents (e.g. of dwellings such as houses, hotels, hospitals), transport system users (e.g. pilots, water craft operators, train drivers, motorists, cyclists), transport signalling systems (e.g. air, marine, rail), astronomical observations and environmentally sensitive areas.

The document does not apply to the following:

- (a) Lighting for entertainment and festivals that is designed for a performance or an event that operates outside of curfew hours, and for a regularly occurring event that operates for an interval of not more than 30 min each night, excluding sports lighting.
- (b) Emergency warning, way finding lights/marker lights, navigation lights, all traffic signals, traffic signage and vehicle headlights, including working lights mounted on moving vehicles and plant.
- (c) Lighting for aviation safety.
- (d) Flags that are required to be lit at night by government protocol, see [Appendix D](#).

This document does not apply to the following unless specified by the relevant authority:

- (i) Public lighting, as defined in [1.3.24](#). (see [Section 4](#)).
- (ii) Temporary lighting other than that stated in item (a), operating for less than one month,

This document does not apply to the following unless the lighting scheme impacts environmentally sensitive areas, or observatories:

- (A) Lighting chains and other small lighting systems and devices, for example budlighting, fairy lights, festoon lighting, where the individual lights emit less than 30 lm and has a total luminous flux of less than 20 000 lm that operates in the non-curfew period.
- (B) The upward light limits for lighting of approved public artworks.
- (C) The upward light limits for lighting of the facades of classified heritage buildings and objects.

This document does not apply to temporary sports lighting, including that for televised coverage.

The above exemptions do not override regulatory and environmental legislation.

This document does not apply to impacts associated with the aesthetic or obtrusive daytime appearance of outdoor lighting systems, including their support structures.

While conformance with this document will afford general environmental benefit by reducing sky glow and light spill, the management of artificial light for the protection of specific entities protected by environmental legislation is beyond the scope of this document due to the diversity of impact pathways, species-specific behavioural and physiological responses of organisms and ecosystems to artificial light, and the potential for listed entities to be found in all environmental zones. As there are no agreed light thresholds at which it has been demonstrated that protected species will not be significantly impacted, biological monitoring would be required to demonstrate that the objectives of

environmental legislation had been met. Environmental impact assessment is beyond the scope of this document. Where protected entities are likely to be significantly impacted by artificial light, a risk-assessed and adaptive management approach should be undertaken to assess the impacts to protected species or ecological communities. Further guidance for environmental impact assessment is provided in [Appendix C](#).

This document is intended for reference by the following:

- (1) Relevant operators and authorities; such as building and infrastructure owners, industry plant operators, planning bodies, local government and transport control authorities etc, to assist in assessing and mitigating the potential obtrusiveness of both shielded and unshielded outdoor lighting systems.
- (2) Specifiers, designers, and installers of outdoor lighting systems, as an aid to producing lighting systems that control obtrusive effects to limits defined in this document.

NOTE [Appendix B](#) provides guidance on the documentation that may be required by planning bodies, in order to facilitate assessment of a proposed lighting scheme.

1.2 Normative references

The following documents are referred to the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents for informative purposes are listed in the Bibliography.

AS ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

AS/NZS 1158.1.1, *Lighting for roads and public spaces, Part 1.1: Vehicular Traffic (Category V) lighting-Performance and design requirements*

AS/NZS 1158.2, *Lighting for roads and public spaces, Part 2: Computer procedures for the calculation of light technical parameters for Category V and Category P lighting*

AS/NZS 1158.3.1, *Lighting for roads and public spaces, Part 3.1: Pedestrian Area (Category P) lighting-Performance and design requirements*

AS/NZS 1158.4, *Lighting for roads and public spaces, Part 4: Lighting of pedestrian crossings*

NZS ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

1.3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

1.3.1

affected property

property, with one or more relevant boundaries, where the obtrusive impact from the lighting system is being assessed; or, for environmental receivers; their habitat, or that part of their habitat in which the obtrusive impact from the lighting system is being assessed

1.3.2

beam angle

angle between two imaginary lines in a plane through the [optical beam axis](#), such that these lines pass through the centre of the front face of the device and through points at which the [luminous intensity](#) is 50 % of the [centre beam intensity](#)

Note 1 to entry: The beam angle is a full angle measure, not a half angle measure.

Note 2 to entry: The beam angle is expressed in degrees (°).

1.3.3**building façade**

external face of a building that is visible from a calculation plane or a road or of a building at or near an astronomical observing facility

1.3.4**car parks-outdoor****1.3.4.1****off-road car park**

area either on grade or on a structure that is on a separate land title to the road reserve and is designed for the parking of vehicles and includes defined entries, exits, and access roads

1.3.4.2**on-road car parking**

parking on the road reserve including parallel, angle and median parking

1.3.5**commercial area**

area that is zoned for commercial, industrial or shared commercial and residential purposes

1.3.6**competent person**

person who has acquired, through education, training, qualification, or experience, or a combination of these, the knowledge and skill enabling that person to perform the task required

1.3.7**control direction**

with respect to the luminaire, direction that has a declination at a given vertical angle below the horizon

Note 1 to entry: This is a representative direction, with respect to a luminaire's light distribution, that is used for the purpose of evaluating conformance to the maximum luminous intensities.

Note 2 to entry: See [Figure 3.3](#).

1.3.8**curfew**

time interval during which stricter requirements for the control of [obtrusive light](#) apply

Note 1 to entry: See [Clause 3.2.1](#).

1.3.9**dwelling**

building, or part thereof, in which people reside, especially during the hours of darkness

Note 1 to entry: For example, house, hotel, motel, hospital.

1.3.10**dynamic content**

where the luminous image, pattern, colour or direction of light changes over an interval of less than 60 seconds

1.3.11**environmentally sensitive area**

area of ecological value including, bushland, waterways and marine and coastal areas

Note 1 to entry: These areas may be in any environmental zone and include areas that are unlit and should remain dark to provide refuge for flora and fauna that require naturally dark environments. These may include green/black-belts through urban environments.

1.3.12**environmental zone**

categorisation of the relative ambient lighting and environmental conditions as relevant to the lighting system or affected property

1.3.13**environmental receiver**

any identified living species (plants, animals and other organisms) and their locations indicated, that may be impacted by the proposed lighting system

1.3.14**façade lighting**

light sources for external decorative purposes that are fixed to the façade, embedded in the building elements or immediately behind the glazing

1.3.15**floodlight**

specific type of luminaire that emits light within a restricted range of directions, i.e. a beam

1.3.16**glare**

condition of vision in which there is discomfort or a reduction in ability to see, or both, caused by an unsuitable distribution or range of luminance, or to extreme contrasts in the field of vision

1.3.16.1**disability glare**

glare that impairs the visibility of objects without necessarily causing discomfort

1.3.16.2**discomfort glare**

glare that causes discomfort without necessarily impairing the visibility of objects

Note 1 to entry: Both disability and discomfort glare may be present concurrently.

1.3.17**habitable room**

room within a dwelling that is occupied by people for extended periods, especially at night

Note 1 to entry: For example, living room, bedroom and study but not bathroom or storage room.

1.3.18**lighting system**

lighting system comprises the light sources, luminaires or luminous signs, facades and artworks, that are part of the proposed, changed or existing installation that is being assessed

1.3.19**luminaire**

apparatus which distributes, filters or transforms the light transmitted from at least one source of optical radiation and which includes, except the sources themselves, all the parts necessary for fixing and protecting the sources and, where necessary, circuit auxiliaries together with the means for connecting them to the power supply

1.3.20**may**

indicates the existence of an option

1.3.21**obtrusive light**

[spill light](#) which, because of quantitative or directional attributes, gives rise to annoyance, discomfort, distraction, or a reduction in ability to see essential information such as transport signals

Note 1 to entry: Obtrusive light includes the impact on humans and environmental receivers.

1.3.22**outdoor lighting**

any exterior or interior lighting that emits directly into the outdoor environment

1.3.23**protected species and ecological communities**

species or ecological communities listed under the *Environment Protection and Biodiversity Act 1999* as threatened or migratory; or as a protected matter under Australian state or territory environmental legislation; or listed under New Zealand's *Conservation Act 1987*

1.3.24**public lighting**

lighting provided for the purposes of safety and security on public roads, cyclist paths, footpaths and pedestrian movement areas within public parks and gardens, including on-road car parking, but not including off-road car parks

Note 1 to entry: Requirements for public lighting are set out in the AS/NZS 1158 series.

1.3.25**public lighting zones**

categorisation of Public Lighting for the assessment of the impact on adjacent properties, where required by the relevant authority

1.3.26**recreational areas**

areas designated for active play, leisure or public assembly such as parks, picnic grounds, camp sites, golf courses, lakes, streams, and oceans, but excluding private residential areas and sports facilities with dedicated sports lighting

1.3.27**reference direction**

direction to which the luminous intensity distribution of a luminaire is referred

Conventionally, this may be the direction that is normal to the front glass (or luminous emitting surface), the maximum luminous intensity or, where there is no unique maximum, the direction of the centre of the light beam, see [Figure 3.3](#)

1.3.28**relevant authority**

organization or individual who has the legal responsibility to make a determination, approval or exemption for a specific aspect of the obtrusive assessment

1.3.29**relevant boundary**

any boundary of a residential property or environmentally sensitive area over which it is physically possible for spill light from the lighting system to pass and directly impact on—

- (a) a dwelling located on the affected property;
- (b) the potential site of a dwelling if there is no development on the affected property; or
- (c) an area designated as environmentally sensitive area

Note 1 to entry: The lighting system may be within the relevant property boundary.

1.3.30**shall**

indicates that a statement is mandatory

1.3.31**should**

indicates a recommendation

1.3.32**sign**

internally or externally illuminated signage (directional and/or advertising) including static and dynamic signage (e.g. digital billboards), whether mounted outdoors or mounted within a building and visible to an external observer

1.3.33**solid state lighting****SSL**

type of [lighting](#) that uses semiconductor [LEDs](#), organic LEDs (OLEDs), polymer LEDs (PLEDs) or laser diodes as [sources](#) of lighting

1.3.34**sky glow**

brightening of the night sky that results from the [reflection](#) of radiation (visible and non-visible), scattered from the constituents of the atmosphere (gas molecules, aerosols and particulate matter), in the direction of observation

1.3.34.1**man-made sky glow**

part of the [sky glow](#) that is attributable to man-made sources of radiation (e.g. outdoor lighting)

1.3.34.2**natural sky glow**

part of the [sky glow](#) that is attributable to radiation from celestial [sources](#) and luminescent processes in the Earth's upper atmosphere

1.3.35**spill light**

light emitted by a [lighting installation](#) that falls outside the boundaries of the property for which the [lighting installation](#) is designed

Note 1 to entry: Spill light may not necessarily be obtrusive.

1.3.36**threshold increment****TI**

measure of [disability glare](#) expressed as the percentage increase in [luminance contrast](#) threshold required between an object and its background for it to be seen equally well with a source of [glare](#) present

Note 1 to entry: Increasing values of threshold increment correspond to increasing [disability glare](#).

Note 2 to entry: The threshold increment has unit one.

1.3.37**tilt angle**

angle in the vertical plane from nadir (the downward vertical axis directly beneath) to the vector that the luminaire reference direction is aimed. The tilt and uplift angle may be the same, e.g. for a road luminaire, or a symmetrical beam floodlight

Note 1 to entry: Uplift is the angle of the reference surface of the luminaire (usually the light emitting surface or housing) with respect to the horizon. The uplift angle may be different to the tilt where the distribution of the luminaire is asymmetric. The uplift angle may be positive or negative. Refer to AS 2560.2 for more detail.

Note 2 to entry: See [Figure 3.3](#).

1.3.38**upward light ratio****1.3.38.1****upward light ratio (luminaire)****ULR_L**

ratio of the luminous flux of a luminaire that is emitted, at and above the horizontal, divided by the total luminaire flux when the luminaire is mounted in its designed position

1.3.38.2**upward light ratio (system)****ULR_S**

ratio of the luminous flux of all luminaires in the system that is emitted directly into the night sky, divided by the total flux of all the luminaires, when the luminaire(s) is (are) mounted in its designed position(s), and excluding reflected light from surfaces or obstructions

Note 1 to entry: This method allows the inclusion of the impact of obstructions such as baffles or awnings to be included.

1.4 Demonstration of conformity

Conformance to this document shall be demonstrated by the results of calculations and analysis of design methods with respect to the relevant Light Technical Parameters (LTPs) set out herein.

Measurement is not required for conformance.

Section 2 Potential obtrusive effects

2.1 General

This section provides guidance on effects that outdoor lighting may have on surrounding areas.

Outdoor lighting while intended for a specific purpose may have some adverse effect on persons and the environmental receivers. For example, some activities require the illumination of an object in a volume or space, and not just of a surface at ground level. Note that generally there will be a diffusion of light within the lit space resulting from the reflection from surfaces. The following examples illustrate this point:

- (a) Lighting for certain sports, e.g. tennis, baseball, cricket or golf driving ranges where it is essential to be able to see the movement of the ball in the space above the playing surface to an appropriate height.
- (b) Lighting a freight terminal where it is necessary to identify containers in multiple container stacks.
- (c) Security lighting at or adjacent to the property boundary.

NOTE 1 See [Appendix A](#) for guidance on the design and operation of lighting systems.

2.2 Influence of surrounding context

The obtrusive effects of the lighting system may be significantly influenced by the following factors:

- (a) The use of the area abutting or in close proximity to the proposed development.
- (b) The topography of the area surrounding the lighting system. Residential developments at a lower level than that of the lighting system are more likely to be subjected to a direct view of the luminaires.
- (c) Physical features such as adjacent buildings, trees and spectator stands, that may be effective in restricting light spill beyond the boundaries of the development.
- (d) The existing ambient lighting characteristics relative to the proposed lighting.
- (e) The location of the proposed development relative to—
 - (i) areas of special significance, e.g. areas having cultural, environmental, historical or scientific importance;
 - (ii) harbours, airports, heliports, waterways, roads or railway systems where spill light from the proposed development may interfere with the visibility of signalling or signage associated with them; or
 - (iii) community and scientific optical observatories where spill light from the proposed development may interfere with astronomical observations.

2.3 Specific effects

2.3.1 Effects on residents

Effects on residents generally involve a perceived reduction of amenity arising from light technical factors such as the following:

- (a) The illumination from spill light being obtrusive, particularly where the light enters habitable rooms. The illuminance on surfaces, particularly vertical surfaces, is an indicator of this effect.

- (b) The direct view of bright luminaires from normal viewing directions causing annoyance, distraction or even discomfort or disability glare. The luminous intensity of a luminaire, in a nominated direction, is an indicator of this effect.
- (c) Changes in luminance in the peripheral vision due to effects such as variable content in signage or trees moving across bright lights.

The tolerable levels of each of these light technical parameters will be influenced by the ambient lighting existing in the environment where the light technical parameters are being calculated.

There is some evidence that exposure to artificial light at night may have adverse impacts on human health. However, caution is needed in interpreting the specific influence of outdoor lighting on human health. The effects of outdoor lighting on human health are beyond the scope of this document, noting that conformity to this document will limit exposure of humans to outdoor lighting.

2.3.2 Effects on transport system users

One of the effects on transport system users (e.g. pilots, water craft operators, train drivers, motorists, cyclists) normally involves a reduction in the ability to see caused by disability glare from bright light sources. The contrast of other objects and the surrounds to the user will be lowered, rendering them less visible or even invisible, especially if the environment is intrinsically dark. The magnitude of the effect will depend on the level of lighting to which the user is adapted. The relevant indicator for transport system users is the threshold increment (*TI*).

2.3.3 Effects on transport signalling systems

Effects on transport signalling systems will normally involve a reduction in the visibility of the signals either by—

- (a) disability glare; or
- (b) visual clutter; where signals are viewed against a competing background of other lighting. The effect is exacerbated if background lighting is the same colour as the signal lighting or a mix of colours.

2.3.4 Effects on the night sky (sky glow)

Sky glow is a combination of man-made sky glow and natural sky glow, this document only addresses man-made sky glow.

Sky glow is the cumulative effect of each and every light source in a development, and hence its minimization is achieved by careful selection, placement and screening of all light sources.

The increase in man-made sky glow can have a wide range of detrimental effects.

NOTE Refer to CIE 126–1997 for guidance on minimizing sky glow.

2.3.4.1 Astronomy

Visibility of the night sky is important for astronomical observations both for science and for the general appreciation of the night sky.

Effects on astronomical observations will generally involve the modification of night sky viewing conditions by any or all of the following:

- (a) Lightening of the dark sky caused by the scattering of light from the installation, in the atmosphere, increasing sky glow.
- (b) The spectral characteristics of the sky glow, so that the light pollution is not readily filtered out by optical means at the telescope.

(c) Direct light from the installation falling on the observatory.

Where outdoor lighting systems are proposed in the vicinity of community or scientific optical observatories the limitations of spill light and luminous intensity of luminaires in recommended directions will mitigate the adverse effects of direct light falling on the optical surfaces of the telescope.

Sky glow may be mitigated by limiting the exterior lighting in the vicinity of the observatory, including the spectral distribution and optical distribution of the local road lighting. If this measure is to be implemented, close consultation will be needed between all the parties involved, i.e. observatory, local community and relevant authority.

NOTE A list of community and scientific optical observatories is available from the Astronomical Society of Australia (Designated Observatories Officer), c/o School of Physics, University of Sydney, NSW 2006 and the Royal Astronomical Society of New Zealand (rasnz.org.nz).

Where the proposed lighting is within the field of influence of a major optical observatory, the above points are even more pertinent. Additional limitations on spill light may be imposed over a considerable area surrounding the observatory as part of a long-term plan to maintain satisfactory night sky viewing conditions. Such plans should be based on guidelines set out by the International Commission on Illumination and the International Astronomical Union in CIE 001–1980.

2.3.4.2 Cultural impacts

Cultures around the world, including many First Nations traditions and knowledge systems, are based on the stars and other celestial objects, and the peoples' ability to observe and interpret the night sky.

The mitigation for the preservation of culture is similar to the controls for astronomy.

2.3.4.3 Impact on flora and fauna

The impact on flora and fauna is addressed more generally in [Clause 1.1](#). However, the increase in sky glow can have an overall impact on the navigation and feeding of fauna which can have consequential impacts on the overall environment. The skyglow impacts on flora and fauna can be caused by light emitted at a lower altitude and be localized to specific installations.

2.3.4.4 Impact of the spectral content of the light

The blue content of the light has an impact on the sky glow as it scatters more in the atmosphere than light at the red end of the spectrum.

Preference should be given to sources with a correlated colour temperature of 3 000 K or less unless there is a safety reason for using 4 000 K. For CCT in public lighting refer to SA/SNZ TS 1158.6.

While Spectral Power Distribution (SPD) provides a better indication of the blue content in the light source there are no criteria to specify a limit that can be applied. Sources with low blue content are preferred.

Removal of the blue content of light, while effective in reducing the impact on astronomy and the overall brightness of the sky, is not a universal solution. Care should be taken in general limitation of blue light as there are some animals that prefer blue light, and as the illumination levels reduce, human vision moves into the scotopic zone which primarily relies on blue light for visual performance.

NOTE Sports fields have high levels of human activity, task visibility is challenging, and they are often used during sunset. Sources of up to 5 700 K ("daylight") can satisfy end user preferences, and when combined with the principles described in [Clause A.2](#) by a competent lighting designer, other adverse effects can be substantially mitigated, e.g. sky glow/ULR, glare, and spill light.

2.3.5 Effects on the natural environment

Effects on the natural environment may include behavioural changes in animals, physiological changes in plants and animals and changes in the interactions between organisms. Light can affect all living species (including plants, animals and other organisms) in all habitat types (land, air and water).

These changes can occur at very low light levels, for example some species change their behaviour with the waxing and waning of the moon. The physiological responses of some species may also be affected by the spectral composition of the light, particularly at short wavelengths.

NOTE The most effective way to avoid impacts on environmentally sensitive areas is to minimize spill light and upward light. See [Appendix C](#) for further information on the impact of outdoor lighting on the flora and fauna.

Section 3 Light technical parameters

3.1 General

This section specifies the limits for the relevant Light Technical Parameters (LTPs), their assessment and where they are to be applied.

For the purpose of applying the LTPs a lighting system shall be counted as a stand-alone installation. Where there are lighting installations on several properties their impact may be assessed independently of each other.

Where the lighting installation site contains existing lighting, the vertical illuminance from the existing lighting installation should be allowed for in the assessment. The allowance may be based on site measurements, design simulations, or the application of a lower maximum illuminance limit.

Planned increases to a lighting installation, both proposed or existing, e.g. increased lighting levels, or additional areas, should be included in the assessment.

Where the lighting system is within an affected property which contains multiple dwellings, any relevant existing sports lighting within the affected property shall be included in the assessment. Where required by the relevant authority, the impact of public lighting shall be assessed independently of other lighting impacts (see [Section 4](#)).

Based on the zoning of the sites adjacent to the lighting system and any environmentally sensitive areas it may be necessary to consult appropriate persons with competence in the fields of illuminating engineering and environmental assessment to determine the potential effects of a specific proposal.

3.2 Limits for light technical parameters

3.2.1 Applicable limits

The indicators of potential obtrusive effects identified in [Clause 2.3](#) relate to the initial light technical parameters specified in [Tables 3.2](#) to [3.4](#). These limits are applicable to residents, transport system users, environmentally sensitive areas, and astronomical observatories. Although these limiting values are intended to control the obtrusive effects, they will not necessarily ensure that a conforming installation will receive no adverse reaction from those affected by the spill light.

This is particularly true for environmentally sensitive areas as no limits have been identified that will ensure no adverse effects; however, limiting light spill into environmentally sensitive areas and minimizing sky glow will have environmental benefits.

Conformance with this document will not necessarily meet the requirements of environmental legislation, and the effect on areas with protected species or ecological communities is out of scope of this document, see [Appendix C](#). Conformance to the limiting values indicates that good practice control measures have been utilized.

Different limits have been applied based on the ambient light conditions. These ambient conditions are described for each of the environmental zones in [Table 3.1](#).

Two sets of limits are specified in [Tables 3.2](#) and [3.3](#) for the parameters E_v (vertical illuminance) and I (luminous intensity) respectively based on the times that the lighting system is to operate. A higher level of lighting may be less obtrusive in the early hours of the evening when there is more activity, and the majority of people are awake. For later times (in the curfew period) lower limits have been applied. For environmentally sensitive areas, a curfew may provide some respite from obtrusive light spill, though this may not mitigate problems due to changes in the duration of daylight hours.

Unless otherwise specified by the relevant authority, the times for determining which set of limits applies, i.e. curfew period, should be taken as being between 11 p.m. and 6 a.m.

The lower limit for application during the curfew period need not apply where it can be demonstrated to the satisfaction of the relevant authority that there will be no adverse effects on residents or wildlife e.g. no nearby residential development, either existing or planned. Where the affected property is or includes an environmentally sensitive area, the lower limit shall apply at all times. Where a different curfew period applies for other reasons (e.g. noise control), consideration should be given to the coordination of the curfews, e.g. allowing sufficient time of operation for the lighting after the conclusion of the activity to facilitate crowd dispersal.

3.2.2 Applicable light technical parameters

All calculations shall use a maintenance factor of 1.0.

Where controls, such as dimming or shields, are required for conformance, then details shall be detailed in the certification.

The following light technical parameters shall apply:

- (a) Vertical illuminance (E_v)
The vertical illuminance shall be calculated in accordance with [Clauses 3.3.1.3](#) to [3.3.1.6](#).
- (b) Luminous intensity (I)
The luminous intensity shall be assessed for all systems other than lit surfaces in accordance with [Clause 3.2.5](#). Level 1 limits shall be used for all new systems. Level 2 limits can only be applied to the specific luminaires identified in accordance with [Clause 3.2.5](#) (e).
- (c) Average luminance
The average luminance shall be assessed for internal and external illuminated signs, façades and artworks. If an internally illuminated surface is less than 0.4 m², and is not adjacent to other similar surface, then it should be treated as a luminaire and shall conform to the luminous intensity limits of [Table 3.3](#) rather than luminance.
- (d) Threshold increment (TI)
The TI on transport corridors affected by the lighting system shall conform to the limits in [Table 3.2](#) and calculated in accordance with [Clause 3.3.1.7](#) and [Clause 3.3.3.3](#).
- (a) Upward light ratio (ULR_S and ULR_L)
The upward light ratio for all lighting systems other than those systems exempted in [Clause 1.1](#) shall conform to the limits in [Table 3.2](#) and [Clause 3.3.3.4](#) as applicable, and calculated in accordance with [Clause 3.3.1.8](#).

3.2.3 Basis for differentiation of limits according to area type

The limiting values specified for E_v , I , TI , ULR_S and ULR_L in [Tables 3.2](#) to [3.4](#) are differentiated according to the environment type (see [Table 3.1](#)). The differentiation takes account of land use zoning which, in part, reflects the function of the lighting, and the existing and future level of night-time activity to be expected in the area.

Table 3.1 — Environmental zones

Environmental zones	Ambient light conditions	Descriptions/ Examples
A0	Intrinsically dark	UNESCO Starlight Reserve. IDA: Dark Sky Parks, Reserves or Sanctuaries Major optical observatories Other accreditations for dark sky places for example astrotourism, heritage value, astronomical importance, wildlife/ecosystem protection Lighting for safe access may be required
A1	Dark	Relatively uninhabited rural areas (including terrestrial, marine, aquatic and coastal areas) Generally roadways without streetlighting through rural areas
A2	Low district brightness	Sparsely inhabited rural and semi-rural areas Generally roadways without streetlighting through suburban, rural or semi-rural areas other than intersections
A3	Medium district brightness	Suburban areas in towns and cities Generally roadways with streetlighting through suburban, rural or semi-rural areas
A4	High district brightness	Town and city centres and other commercial areas Residential areas abutting commercial areas Industrial and Port areas Transport Interchanges
TV	High district brightness	Vicinity of major sport and event stadiums during TV broadcasts
NOTE Zones A0 and A1 would normally have a minimum area of 50 ha.(0.5 km ²). There may be smaller environmentally sensitive areas.		

3.2.4 Basis for differentiation of limits for E_v and I according to times of operation

There is a potential conflict between the lighting requirements necessary to facilitate an activity and the maintenance of amenity and environmental integrity. Two sets of limits for E_v and I are given, based on the times that the lighting is to operate, as follows:

- (a) *Limits for non-curfew period* The higher of the two sets of limits shall apply for operation of the lighting outside the curfew.
- The non-curfew limits have as their objective the facilitation of the intended activity while giving recipients of spill light some relief from it being obtrusive.
- (b) *Limits for curfew period* The lower of the two sets of limits shall apply for operation of the lighting during the curfew period during which maintenance of the amenity and environmental integrity of the area become the dominant considerations.

3.2.5 Basis for differentiation of limits for luminous intensity (I) according to precedent

Level 1 (L1) and Level 2 (L2) limits for intensity (I) shall be in accordance with [Table 3.3](#).

Generally, L1 limits shall be used unless there are certain circumstances that justify L2 limits, specifically—

- (a) where there is no existing lighting system, and new luminaires are used on new support structures, e.g. poles, buildings, grandstands, L1 limits shall apply;

- (b) where there is no existing lighting system, and new luminaires are used on existing support structures, L1 limits shall apply;
- (c) where there is an existing lighting system that is being removed/replaced, and where new luminaires are used on new support structures L1 limits shall apply
- (d) where there is an existing lighting system that is being retained, either wholly, or in part, any new luminaires on new support structures shall meet L1 limits; and
- (e) where there is an existing lighting system that is being retained, either wholly, or in part, or is being removed/replaced, any new luminaires on existing support structures should meet L1 limits. Where the existing support structures are not sufficiently high, or in ideal locations, such that the necessary LTP's for the primary purpose of the lighting system cannot be reasonably achieved, then L2 limits may be used for new luminaires. The application of L2 limits should be strictly limited to only those luminaires where L1 cannot be reasonably achieved, and not generally applied to the whole system. Where L2 limits are used it should be demonstrated that the obtrusive effect of the new scheme is not greater than the previous lighting system.

3.3 Assessment of conformance

3.3.1 Environmental Zones A0-A4

3.3.1.1 General

Conformance to the limiting values specified in [Tables 3.2](#) to [3.4](#) shall be assessed on the basis of calculations of the applicable light technical parameters.

NOTE See [Appendix E](#) for guidelines on conducting check measurements.

3.3.1.2 Application of environmental zones

The environmental zone used for assessment shall be selected based on the ambient light conditions and descriptions included in [Table 3.1](#) and any relevant authority requirements. The applicable environmental zone for a lighting system or affected property shall be based on the current zoning for future development of the area irrespective of the level of current development. Provisions can be made at the time of design to allow for future zone changes; however, the installation cannot be operated at a higher level until the zone has been formally changed.

For vertical illuminance and luminous intensity the environmental zone shall be selected for the lighting system and/or for each affected property and in accordance with the following:

For vertical illuminance and luminous intensity:

- (a) An abutting affected property shall be assessed as the same environmental zone as the lighting system unless the abutting affected property is an environmentally sensitive area, recreational areas, an off-road carpark, or the lighting system is used for sports.
- (b) The affected property past the abutting affected property outlined in (a), shall be assessed as the environmental zone applicable to that property irrespective of the environmental zones of the adjacent affected properties, e.g. if the lighting system is a petrol station that is in an A4 zone, the adjacent affected property will be assessed as A4 and if the affected property past the abutting property is A3 it will be assessed as A3.
- (c) Where the abutting affected property is an environmentally sensitive area it shall be assessed as the environmental zone applicable to that property irrespective of the environmental zones of the adjacent properties, or the lighting system.

- (d) For sports, recreational area, and off-road car park lighting systems, the abutting affected property shall be assessed as the environmental zone applicable to that affected property irrespective of the environmental zone of the lighting systems.
- (e) For sparsely inhabited rural and semi-rural areas (Zone A2) that are adjacent to a sports field illuminated to an average of 100 lx or more, as per AS 2560, Zone A3 limits may be applied where acceptable to the relevant authority

For luminance of lit vertical surfaces, the environmental zone shall be selected for the lighting system and/or for each affected property and in accordance with the following:

- (i) The luminance shall be assessed based on the environmental zone of the lighting system.
- (ii) Where internally illuminated signs are proposed to be installed abutting a environmentally sensitive area, the environmental zone for the assessment shall be the zone of the site that the sign is located; however an assessment of the specific nature of the sensitive area shall be made to address the specific impact on any endangered flora and fauna in the specific area affected by the sign.

3.3.1.3 Calculation of illuminance (E_v) and intensity (I) in a vertical plane

Demonstration of conformance to the limits specified in [Tables 3.2](#) to [3.4](#) requires a detailed analysis of the situation with the identification of potential problem locations, e.g. windows of dwellings and specific viewing directions of concern.

Limiting values are for the direct component of luminous flux only. Reflected light shall not be included. Refer to [Clause 3.3.1.6](#) for obstructions.

The maximum intensity from any luminaire in the lighting system, and the maximum vertical illuminance shall be calculated at either of the following point/s:

- (a) For an affected property where there is an existing dwelling, calculations shall be at the centre of the windows of habitable rooms with views of the lighting system. For windows with a width or height of 2 m or more, a grid of points shall be used with a maximum spacing of 2 m in either direction. Alternatively, calculations may be as stated in [Clause 3.3.1.3](#) (b).
- (b) For an affected property with no dwelling (including environmentally sensitive areas) calculations shall be at a grid of points on relevant vertical plane/s as described in [Clause 3.3.1.4](#) and [3.3.1.5](#). The points shall be spaced at not more than 2 m horizontally, and 1 m vertically, unless the luminaire(s) are greater than 20 m from the nearest calculation point; then the points may be spaced at not more than 5 m horizontally, and 2 m vertically.

3.3.1.4 Vertical calculation plane location

The calculation plane location shall be determined as follows, see [Figure 3.1](#):

- (a) Where there is an existing dwelling the location of the calculation plane is generally determined at the building line of the potentially affected dwelling/s. The building line is the face of an existing dwelling that contains windows of habitable rooms but does not include balconies and verandahs.
 - (i) Where a building line is less than 10 m from a relevant boundary the calculation plane/s shall be at the building line. Should the building line extend greater than 10 m from the closest relevant boundary, the calculation plane shall be deviated at that point to a non-relevant boundary, or to within 10 m of a relevant boundary. The deviated calculation plane shall be parallel to the closest relevant boundary. See [Figure 3.1](#) a) c) and e).
 - (ii) Where a building line is greater than 10 m from the relevant boundary the calculation plane/s shall lie along a line that is no greater than a 10 m zone from

all relevant boundaries and extending to non-relevant boundaries. See generally [Figure 3.1 b\)](#), and also a) and e).

- (b) For lots with no dwelling boundaries, i.e. a vacant lot, the calculation plane shall lie along a line at a distance from all relevant boundaries that is no greater than minimum setback required by the relevant authority for the construction of a new dwelling. If the setback has not been determined, is unknown, or is greater than 10 metres, then a 10 m setback distance shall be assumed. See [Figure 3.1 d\)](#).
- (c) For environmentally sensitive areas the location of the calculation plane is generally determined at a distance inside of the relevant boundary.
 - (i) For A0, A1 or A2 environmentally sensitive areas the calculation plane/s shall lie along a line that is no greater than a 10 m from all relevant boundaries, and extending to non-relevant boundaries. Where an internally illuminated sign is located in an A2 area, the calculation plane/s shall lie along a line that is no greater than a 20 m buffer zone from all relevant boundaries and extending to non-relevant boundaries. See [Figure 3.1 f\)](#).
 - (ii) For A3 or A4 environmentally sensitive areas, the buffer zone can be up to 50 m, provided that the width of the buffer zone is less than 10 % of the overall depth of the environmentally sensitive area as measured inwards from the relevant boundary. See [Figure 3.1 f\)](#).

Where an existing building line, or future dwelling is greater than 10 m from a relevant boundary, the provision of a 10 m limit protects them from being subject to excessive light beyond the first 10 m. For large lots where existing or future dwellings are significantly distant from the relevant boundaries, the 10 m limit may be increased in agreement with the relevant authority.

Where there are numerous calculation planes, they may be combined into a simplified calculation plane/s for more convenient analysis. Such simplified calculation plane/s shall be located closer than strictly necessary to the subject luminaires such that higher values will be reported.

Where the calculation plane is not at a relevant boundary, the results at the relevant boundary may be used for conformance assessment such that higher values will be reported, e.g. at a residential property boundary instead of a building line. This will generally demonstrate a superior level of control.

Where the calculation plane is not at a relevant boundary, the results at the relevant boundary may additionally be calculated to permit comparison with site measurements.

If conformance is not achieved at the required calculation plane location the installation shall be reported as non-conforming. The setback distance at which the limits are achieved may be determined and used to guide modification of the installation to achieve compliance or the significance of the non-conformance.

NOTE The figures (a) to (f) in [Figure 3.1](#) do not correspond with subclauses (a) to (f) of this clause.

3.3.1.5 Height of the vertical calculation points

The height of the points in the vertical plane shall be as follows, see [Figure 3.2](#):

- (a) Where the calculation plane is along a building line of an existing building, the highest calculation points shall be taken to be the top of the highest window of the habitable rooms. The lowest calculation points shall be taken to be the bottom of the lowest window of the habitable rooms.
- (b) Where the calculation plane is along a boundary with a minimum dwelling or other setback, the highest calculation points shall be taken to be the maximum building height permitted by the land use zoning provisions. The lowest calculation point shall be 1.5 m or less above ground level. Where there is no maximum building height in the zoning the highest calculation point shall be equal to the height of the highest luminaire subject to analysis.

- (c) Where the calculation plane is along a residential property boundary the lowest calculation points shall be 1.5 m above ground level, and the highest calculation points shall be determined either by—
- (i) the intersection of the 'lines of sight' between the luminaires subject to analysis and the highest points that might occur on the building line, or setback calculation planes, and the vertical plane at the property boundary; or
 - (ii) the height of the highest luminaire subject to analysis.
- (d) Where the calculation plane is along a boundary of an environmentally sensitive area —
- (i) if the lighting system has an ULRS less than or equal to 0.01 then the top of the calculation plane shall be equal to the height of the highest luminaire or 10 m, whichever is greater;
 - (ii) If the lighting system has a ULRS greater than 0.01 then the top of the calculation plane shall be twice the height of the highest luminaire or 30 m, whichever is greater; and
 - (iii) where the luminaire has a relatively large size, e.g. is a sign or façade, etc. then the height of the luminaire shall be taken as the top of the luminous opening.

3.3.1.6 Obstructions

Where there is a permanent obstruction between the light source and the calculation points, the vertical illuminance or intensity need not be calculated for points within the area of the calculation plane that are obstructed. An obstruction can be considered opaque if the following criteria apply:

- (a) There shall be consistent light transmission throughout the year.
- (b) There shall be a light transmission factor of less than 0.2.
- (c) No image of the light source shall be visible through the obstruction.

If the obstruction is translucent with a transmission factor greater than or equal to 0.2 then the vertical illuminance shall be calculated, ignoring the impact of the obstruction, and multiplied by the transmission factor of the obstruction.

If the obstruction is transparent, such that there is a visible image of the luminaire, then the luminous intensity shall be multiplied by the transmission factor.

If the obstruction is diffuse, such that the image of the luminaire is obscured, then the luminous intensity shall be calculated by calculating the illuminance on the face of the obstruction, multiplying it by the transmittance, divided by π and multiplied by the projected area of the lit section of the obstruction.

Trees and foliage may be considered as obstructions provided that —

- (i) they are evergreen;
- (ii) the obstruction comprises one or more tree or plant that achieves a transmission factor of 0.2;
- (iii) the light sources are not visible through the tree or plant; or
- (iv) the trees and plants are sufficiently developed at the initial operation of the lighting to achieve the level of obstruction assumed in the conformance certification.

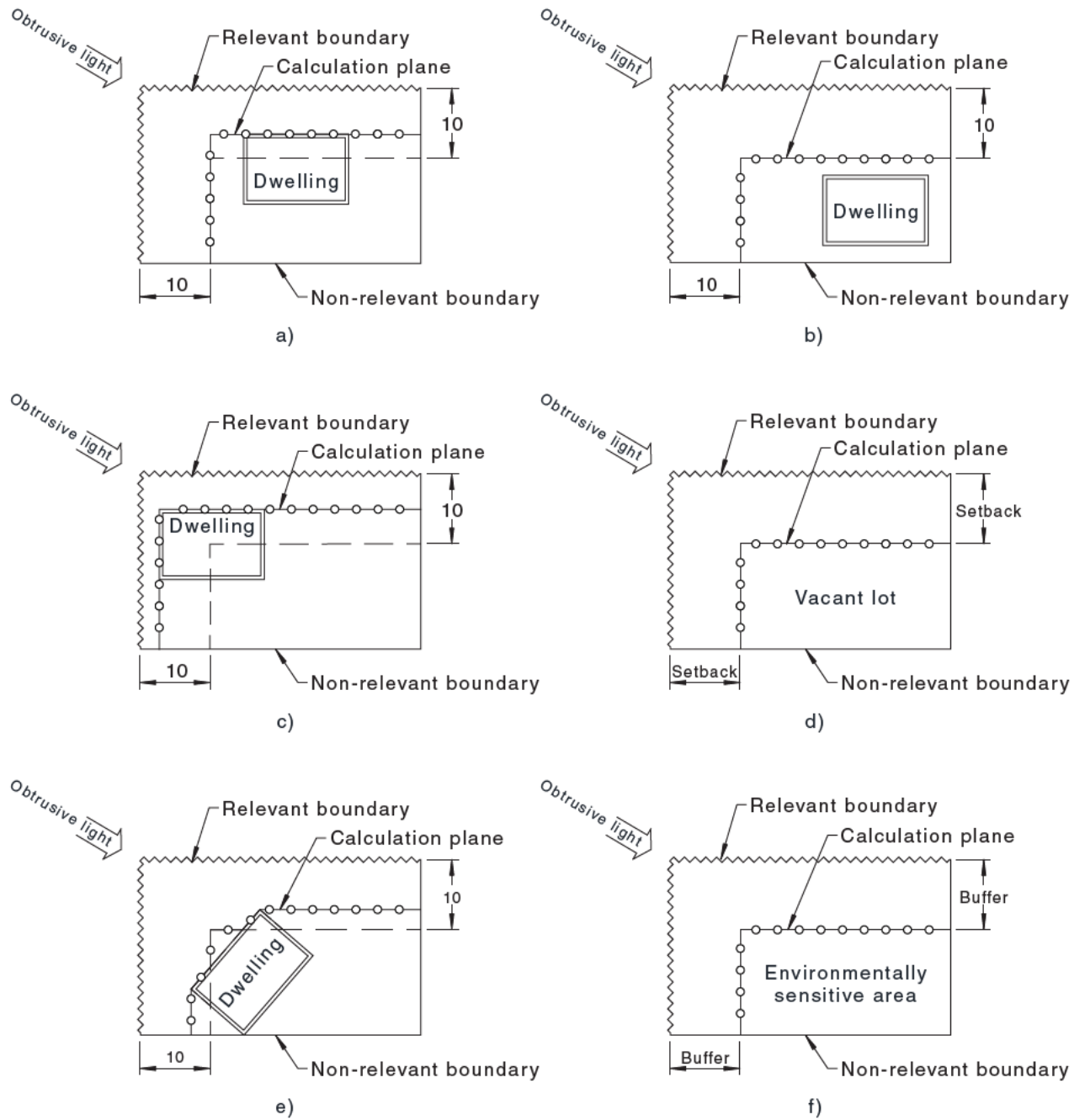


Figure 3.1 — Examples showing application of limits for E_v and I for zones A0 to A4

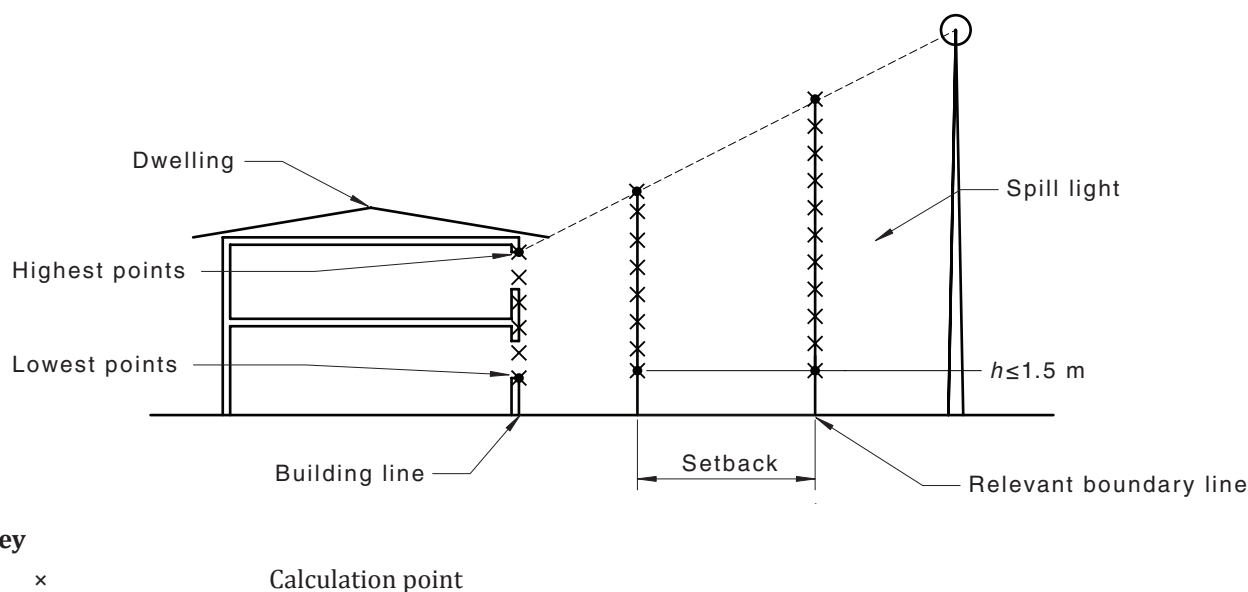


Figure 3.2 — Example of location and height of calculation points for limits for E_V and I for zones A0 to A4 (excluding environmentally sensitive areas)

3.3.1.7 Calculation conditions for threshold increment (TI)

The threshold increment, TI , shall be calculated as follows:

$$TI = 65L_v / (L_{ad})^{0.8} \quad 3.1$$

where

L_v = veiling luminance, in candelas per square metre (cd/m^2), see [Equation 3.2](#)

L_{ad} = adaptation luminance, in cd/m^2

= $\bar{L}$ (average luminance for a transport corridor)

$\bar{L}$ may be calculated on the relevant transport corridor (e.g. carriageway) for the specific site conditions. $\bar{L}$ is as defined in AS 1158.1. For other situations the values of adaptation level (L_{ad}) in [Table 3.2](#) may be assumed.

Only luminaires that lie within the range 1.5° and 60° from the observer's line of sight, in any direction, shall be taken into account in the calculation of TI .

The driver's eye height shall be 1.5 m above the road surface.

The driver's line of sight shall be parallel with the centre-line of the road and 1° down relative to the plane of the road surface.

The cut-off angle of the windshield (windscreen) should be assumed to be 20° above horizontal.

Only direct light shall be considered in the TI calculations (no inter-reflected light, even if calculated with the full radiosity method).

For the purpose of assessing TI , the ground plane shall be assumed to be horizontal.

The veiling luminance, L_v from [Equation 3.1](#) shall be calculated as follows:

$$L_v = 10 \sum \left(\frac{E}{\theta^2} \right) \quad 3.2$$

where

- E = the initial illuminance at the observer's eye from one luminaire, in lux
- θ = the eccentricity of the luminaire from the observer's line of sight, in degrees
- Σ indicates that the contributions from all luminaires are summed

3.3.1.8 Upward light ratio

3.3.1.8.1 General

The upward light ratio is a measure of the extent to which the system directly contributes to the sky glow. The definitions of upward light ratio are different to that in the AS/NZS 1158 series of standards as the application in this document is wider.

This document allows alternative methods of assessing upward light. The limit in [Table 3.2](#) shall apply to the whole installation, see [Clause 3.3.1.8.2](#). Therefore, individual luminaires are permitted to exceed the value provided the installation meets the limit in [Table 3.2](#). A superior level of control can be demonstrated when all individual luminaires conform, see [3.3.1.8.3](#).

3.3.1.8.2 Upward light ratio (system) ULR_S

The whole system can be evaluated for the design position(s) of the luminaire(s) using the following equation:

$$ULR_S = \Sigma \phi_A / \Sigma \phi_T \quad 3.3$$

where

- $\Sigma \phi_A$ = the total flux emitted by all the luminaires above the horizontal at the aiming angle, in lumens (lm) excluding light that is incident on surfaces e.g. the ground, objects or obstructions.
- $\Sigma \phi_T$ = the total flux emitted by all the luminaires, in lumens (lm)

If the system can be shown to conform without modelling of all the obstructions, then there is no requirement to model all the obstructions.

3.3.1.8.3 Upward light ratio (luminaires) ULR_L

Where louvres or shields, within or external to the luminaire, are used the impact of these louvres and shields can be included in the ULR_L calculations.

The upward light ratio (luminaires) can be used to assess the direct spill light to the sky from a specific luminaire. The luminaire shall be evaluated for the design position(s) of the luminaire(s) using the following equation:

$$ULR_L = \phi_A / \phi_T \quad 3.4$$

where

ϕ_A = flux emitted by the luminaire above the horizontal at the aiming angle, in lumens (lm)

ϕ_T = total flux emitted by the luminaire, in lumens (lm)

If all the luminaires in the lighting system individually meet the ULR limit in [Table 3.2](#) then the lighting system conforms.

3.3.2 Sport and event venues illuminated for TV coverage

3.3.2.1 General

Conformance to the TV zone limiting values specified in [Tables 3.2](#) and [3.3](#) shall be assessed while the broadcast lighting system is in operation, at maximum operating level. When the venue is used for purposes not requiring a high level of illuminance as for TV broadcasting, e.g. a lower level of competition, or training, then it shall be assessed in accordance with Environmental Zones A0-A4 limits per [Clause 3.3.1](#).

Conformance to the limiting values indicates that good practice control measures have been used, but it does not necessarily mean that the obtrusive effects will receive no adverse comments and not that the obtrusive effects will be devoid of impacts to all receivers. Residences in the vicinity of such venues will be subject to obtrusive effects while the televised sports TV lighting system is in operation.

Where the sports TV lighting system is for a venue that is not a typical stadium type, e.g. horse racing tracks (flat/gallop, and harness), greyhound racing tracks, motor racing tracks, golf courses, etc., or it is intended to be used on a relatively high number of occasions, or where the relevant boundary is relatively close to the illuminated sports area, it is recommended that the maximum vertical illuminance (E_v) be assessed in accordance with [Clause 3.3.1](#), and the limits for E_v should be 12 % of the initial ($MF = 1$) average illuminance to the camera over the Principal Playing Area (PPA, refer to AS 2560.1), or the illuminated section in the vicinity of the relevant boundary. Where such an assessment is deemed necessary, it should be undertaken by persons who are professionally qualified and competent in the discipline of illuminating engineering with experience with sports lighting systems for television and with the relevant authority.

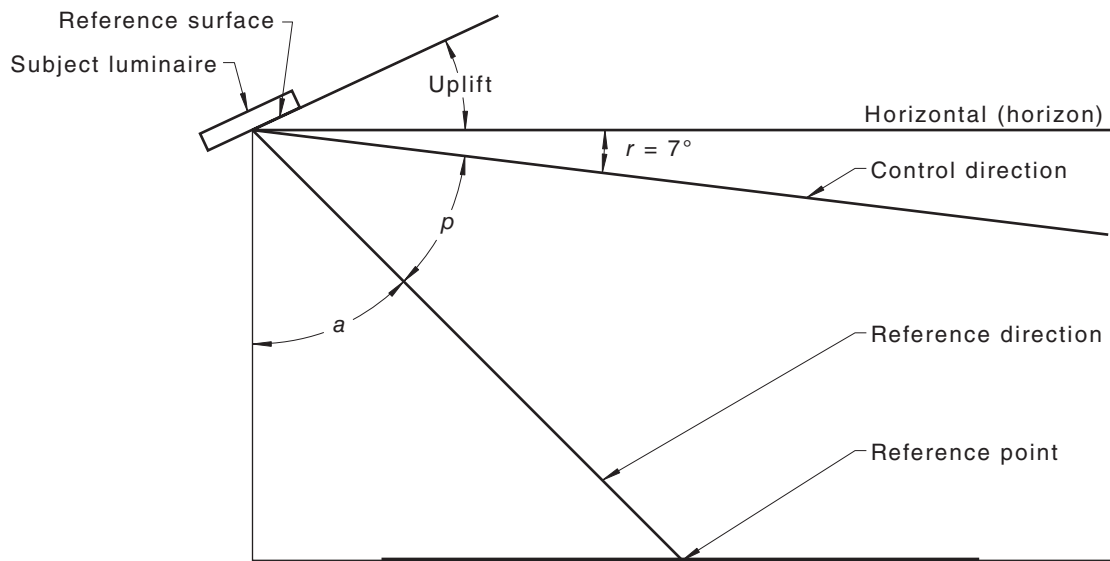
3.3.2.2 Calculation of intensity (I)

The intensity limits in [Table 3.3](#) shall apply to each luminaire at all azimuth planes for all elevation angles at and above the control direction when the luminaire is mounted in its design position.

The control direction is 7° below the horizontal, see [Figure 3.3](#). See [Clause 3.2.5](#) for the basis of application of level 1 and level 2 limits.

Where it can be established that a luminaire is not visible from relevant boundaries outside of the property being lit, then intensity limits do not apply to that luminaire, see [Clause 3.3.1.6](#).

Where a luminaire does not conform with Level 1 control direction limits, conformance may be demonstrated by having a maximum intensity of not more than 165 000 cd assessed in the direction of the windows of habitable rooms in accordance with [Clause 3.3.1.3](#),



Key

a = reference angle of the subject luminaire photometry, in elevation

ρ = angular displacement, in elevation, of the control direction from the reference direction

r = angular displacement between the control direction and the horizontal

Figure 3.3 — Illustration of the various reference angles for determining intensity limits for TV broadcasting

3.3.3 Lit surfaces

3.3.3.1 General

This clause covers surfaces that may produce obtrusive light either by emitted or reflected light and includes internally and externally illuminated signs, façade lighting and objects. The LTPs for these surfaces shall be no greater than the applicable limits in [Tables 3.2](#) and [3.4](#).

An internally illuminated sign may include digital signs with exposed or lensed LEDs, backlit signs and similar light emitting signage.

Where an internally illuminated sign or object operates during non-curfew operation only, the LTPs do not apply if the total illuminated area is less than or equal to 0.25m². Where the sign or object comprises a series of modules, the illuminated area shall be the sum of all modules.

During curfewed operation, the LTPs do not apply into internally illuminated signs or objects with an illuminated area less than or equal to 0.05m².

Luminous intensity limits are not applicable unless there is direct view of the light emitting surface of a luminaire or there is a specular reflection in the surface being lit.

3.3.3.2 Signs, façades and artwork with dynamic content

Where a sign, façade or artwork displays dynamic content and is located within 100 m of the relevant boundary of a residential dwelling with views to the content, the resulting vertical illuminance (Ev) limit shall be not greater than 50 % of the maximum allowable in [Table 3.2](#),

3.3.3.3 Calculation procedures

3.3.3.3.1 Internally lit and light emitting surfaces

The maximum average luminance of the sign, façade, or artwork shall be not greater than the limits in [Table 3.4](#). Signs that can be seen by drivers shall have the threshold increment calculated. The TI shall be not greater than the limits in [Table 3.2](#).

The average luminance shall be based on a full white image at the night level unless the following apply:

- (a) Where a surface has fixed colours the average luminance may be calculated for those colours.
- (b) Where the whole surface does not emit light, the surface area used in the calculation shall only include that area where the luminance is greater than 10 % of the maximum luminance.
- (c) Where the light emitting surface is diffuse, the luminous intensity for the purpose of calculating the vertical illuminance (E_v) may be the average luminance multiplied by the projected area of the lit surface. Where the light emitting elements of the lit surface have a directional characteristic with a beam angle of less than 90° then the actual luminous intensity of the lighting elements shall be used.
- (d) Where the distance from the surface to the calculation plane is less than 5 times the maximum dimension of the surface, the surface shall be subdivided into smaller elements such that the maximum dimension of the smaller elements is < 20 % of the distance between the surface and calculation plane. Vertical illuminance is determined for each smaller element and summed.

The vertical illuminance (E_v) shall be calculated in accordance with [Clause 3.3.1.3](#).

3.3.3.3.2 Externally illuminated surfaces

The maximum average luminance of the signs, façades or artworks shall be not greater than the limits in [Table 3.4](#).

The average luminance shall be based on the surface reflectance as follows:

- (a) The average luminance shall be calculated by multiplying the average illuminance by the average reflectance of the surface divided by π . The area of the calculation for the illuminance shall be the area illuminated to greater than 10 % of the maximum illuminance. Where the reflectivity of the surface can be changed the calculation shall be based on a white surface with a reflectance of 80 %.
- (b) Where the illuminated surface has a high level of specularly so that the image of the light source can be seen in the surface, the luminance shall be taken as the luminance of the light source multiplied by the specular reflectance of the surface.
- (c) The luminous intensity of the surface for the purpose of calculating the vertical illuminance can be the average luminance multiplied by the projected area of the surface.

Where there is direct vision of the light source or the flashed area of the reflector then the luminous intensity limits of [Table 3.3](#) shall apply.
- (d) Where the distance from the surface to the calculation plane is less than 5 times the maximum linear dimension of the surface, the surface shall be subdivided into smaller elements.
- (e) The vertical illuminance (E_v) shall be calculated at the window of the habitable dwelling in accordance with [Clause 3.3.1.3](#).

NOTE Despite the exemption for the facades of classified heritage buildings and objects the designer should, where practical, design to minimize the upward light component.

3.3.3.4 Control of upward waste light

The upward light impact of lighting included under [Clause 3.3.3](#) shall be assessed as individual items as follows:

- (a) Internally illuminated signs and other internally illuminated objects shall have a ULR_L of ≤ 0.50 .
- (b) Digital signs shall have a ULR_L of ≤ 0.45 .
- (c) Externally lit signs and billboards shall be lit from the top and shall have a ULR_L or ULR_S no greater than that specified in [Table 3.2](#).

For other lit surfaces not included in (a) to (c), e.g. façade lighting, walls, and trees, the lighting system shall include measures which mitigate upward waste light. See [Appendix A](#) for guidance.

3.3.3.5 Lighting of flags and banners

Flags and banners, that are not exempt, if required to be lit, should be lit from ambient light from other sources or luminaires mounted above the top of the flag or banner and shall have a ULR of less than 0.4. The luminaires shall still meet the other LTPs in this document.

See [Appendix D](#).

Table 3.2 — Light technical parameter limits

Zones	Maximum vertical illuminance (E_v) lux		Threshold increment (TI)		Upward Light Ratio
	Non-curfew	Curfew	Maximum TI %	Default Adaptation level (L_{ad}) cd/m ²	Maximum ULR_S or ULR_L
A0	0 ^a	0.0	N/A	N/A	0.00
A1	2	0.1	20	0.1	0.00
A2	5	1	20	0.2 ^b	0.01
A3	10	2	20	1	0.02
A4	25	5	20	5	0.03
TV	N/A	N/A	20	10	0.08
^a For A0, E_v shall be as close to zero as practicable without impacting safety considerations.					
^b For an internally illuminated sign in a A2 zone, $L_{ad} \leq 0.25$ cd/m ²					

Table 3.3 — Maximum luminous intensities per luminaire

Zone	Luminous intensity (<i>I</i>), cd		
	Non-curfew Level 1 (L1)	Non-curfew Level 2 (L2)	Curfew
A0	See Note	See Note	0
A1	2 500	5 000	500
A2	7 500	12 500	1 000
A3	12 500	25 000	2 500
A4	25 000	50 000	2 500
TV	100 000	165 000	0

NOTE For A0, *I* shall be as close to zero as practicable without impacting safety considerations.

Table 3.4 — Maximum average luminance of surfaces (cd/m²)

Application conditions	Environmental zones				
	A0	A1	A2	A3	A4
See Clause 3.3.3	0.1	50	150	250	350

Section 4 Public lighting

4.1 General

When the relevant authority deems it necessary to limit the obtrusive light from a public lighting installation, the limits for the relevant LTPs are specified in this section. The impact of public lighting shall be assessed independently of other lighting impacts.

4.2 Assessment of conformance

Conformance to the limiting values specified in [Table 4.2](#) shall be assessed on the basis of calculations of the applicable light technical parameters.

Luminous intensity limits shall not apply to public lighting.

The vertical illuminance limits shall only apply during the curfew period.

4.3 Public lighting zones

4.3.1 Basis for differentiation of limits according to zone type

The definitions of public lighting zones are described in [Table 4.1](#).

Table 4.1 — Public lighting zones

Public lighting zones	Ambient light conditions	Description
V	Traffic routes	Residences near Major Roadways with streetlighting (e.g. subcategory V public lighting scheme as per AS/NZS 1158.1.1)
R1	Local roads with significant setback	Residences near Local roads with streetlighting (e.g. subcategory PR public lighting scheme as per AS/NZS 1158.3.1) where the window line is greater than 10 m from the property boundary
R2	Local roads	Residences near Local roads with streetlighting (e.g. subcategory PR public lighting scheme as per AS/NZS 1158.3.1) where the window line is at or less than 10 m from the property boundary
R3	Roundabout or local area traffic management device	Residences near roundabouts or local area traffic management device with streetlighting (e.g. subcategory PR public lighting scheme as per AS/NZS 1158.3.1) where the window line is at or less than 10 m from the property boundary
RX	Pedestrian crossing	Residences near a pedestrian crossing with lighting (e.g. a subcategory PX public lighting scheme as per AS/NZS 1158.4) where the window line is at or less than 10 m from the property boundary

4.3.2 Public lighting zones for public lighting schemes as determined by AS/NZS 1158.3.1

The lighting zone for each sub-category for Category P installations are as follows:

- Sub-category PR shall use Public lighting zone (R1-R3) limits, as applicable.
- Sub-category PP and PC where part of a road reserve shall use public lighting zone (R1-R3) limits, as applicable.
- Sub-category PP where not part of a road reserve shall use environmental zone (A0-A4) limits as applicable except that the Upward Light Ratio (UWLR) is to be as specified in AS/NZS 1158.3.1.

- (d) Sub-category PA and PE shall use environmental zone (A0-A4) limits as applicable except that the Upward Light Ratio (UWLR) is to be as specified in AS/NZS 1158.3.1.

4.4 Limits for light technical parameters

- (a) Vertical illuminance — The vertical illuminance shall be assessed on the windows of habitable rooms as required, according to [Clauses 3.3.1.2 to 3.3.1.6](#). [Figures 3.1](#) and [3.2](#) illustrate the application of the limits for E_v .
- (b) Threshold increment — Threshold increment on transport corridors affected by the public lighting systems shall conform to the limits in [Table 4.2](#) and calculated in accordance with [Clause 3.3.1.7](#).
- (c) Upward light ratio — An upward light ratio shall conform to the limits in [Table 4.2](#) and be calculated in accordance with [Clause 3.3.1.8](#). The Upward Light Ratios (UWLR) for sub-categories PR, PP, PA, PE and PC where part of a road reserve are to be as specified in AS/NZS 1158.3.1.

Table 4.2 — Public lighting — Maximum values of light technical parameters

Zones	Maximum vertical illuminance (E_v) lux		Threshold increment (TI)		Upward light ratio
	Non-curfew	Curfew	Maximum TI %	Default Adaptation level (L_{ad}) cd/m ²	Maximum ULR
V	N/A	4	As specified in AS/NZS 1158.1.1		
R1	N/A	1	20	0.1	As specified in AS/NZS 1158.3.1
R2	N/A	2	20	0.1	
R3	N/A	4	20	0.1	
RX	N/A	4	As specified in AS/NZS 1158.4		

Section 5 Use of computer programs

Where computer programs are used for the calculation of illuminance, they shall be based on the inverse square law method. The record of the illuminance calculations should state the computer program that was used, including the specific version of that program.

The luminous intensity data used as input for the program shall cover all of the luminous flux emitted by the luminaire(s), not just the angles that define the useful beam.

The photometric data shall be substantiated by reference to test reports from a laboratory that meets the requirements of AS ISO/IEC 17025 or NZS ISO/IEC 17025

NOTE 1 Accreditation bodies that are signatories to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for testing laboratories may be able to offer accreditation against the requirements of AS ISO/IEC 17025 or NZS ISO/IEC 17025. A listing of ILAC signatories is available from the ILAC website (www.ilac.org). In Australia and New Zealand, the National Association of Testing Authorities (NATA) and International Accreditation New Zealand (IANZ) are signatories to the ILAC MRA.

The photometric data used shall have angular intervals in the vertical planes not greater than 2.5°, and in azimuth the interval shall not be greater than 10°.

For road lighting, the photometric data shall have angles in the vertical and azimuth planes in accordance with the format described in AS/NZS1158.2.

NOTE 2 The file may have more supplemental values at intermediate angles in addition to those described in AS/NZS1158.2.

Appendix A **(informative)**

Design, installation, commissioning and maintenance guidelines

A.1 Introduction

This Appendix provides guidance on measures that can help mitigate the adverse effects of obtrusive light. These measures relate to the design, installation, operation, and maintenance of outdoor lighting.

The greatest potential for achieving satisfactory control of spill light is at the design stage. The emphasis of the advice given in this appendix is, therefore, on measures relating to the design of new installations. However, this advice may also be applicable for remedial action that may be taken for existing installations.

Many lighting installations, e.g. sports lighting, public lighting and outdoor workplaces lighting, involve conformance with specific requirements. This document deals with the consequential effects and does not relieve the designer from conformance to the original design brief and objectives of the project.

The design methods for horizontal areas such as sports fields, paths, roads and public spaces have differences compared to the methods for vertical surfaces and objects. They have therefore been separated.

A.2 Principles of obtrusive light mitigation

The primary purpose of an outdoor lighting installation is to satisfy visual needs for safe and efficient task activities, or amenity. Obtrusive light should be kept as low as reasonably achievable without significant compromise of the primary purpose.

The following design principles will help mitigate the adverse effects of obtrusive light:

- (a) A competent lighting designer should be employed. Controlling obtrusive light is often complex, requiring specialist skills, experience, software, and equipment.
- (b) Use light only where needed. Only use light for specific purposes. Only light the area or object intended. Note in some situations it may be beneficial to have a degree of light spill, e.g. pathway surrounds.
- (c) Use light only when needed. Have controls to switch off, dim, and change colour or dynamic aspects of the lighting when it is not required. A curfew could be introduced. Refer to the AS/NZS 1158 series for adaptive lighting controls.
- (d) Use only the amount of light needed. Do not over light. Specific light technical parameters exist for most applications; refer to relevant Standards and guidance from lighting institutions. Lighting should meet the limiting values required but not exceed them by more than necessary.

NOTE Designs should also responsibly account for accuracies and tolerances.

- (e) Use appropriate luminaires and light sources. Take account of other features and benefits beyond initial cost and energy efficiency, e.g. the range of light distributions, light outputs, spectral power distribution (SPD), shielding options, durability, and rigidity. Luminaires with flexible mounting may “flutter” due to wind and become more distracting and annoying.

- (f) Use luminaire optics with appropriate intensity distributions.
 - (i) Intensity distributions with rapid ‘run-back’ or ‘cut-off’ at the edges of the beam can limit the amount of light spill and upward light.
 - (ii) When using floodlights for area lighting, where appropriate use luminaires with asymmetric beams where the light emitting surface can be kept at, or near parallel to the surface being lit.
- (g) Use appropriate luminaire locations and aiming as follows:
 - (i) To minimize sky glow direct light beams downwards. If there is no alternative to up-lighting, then use directional luminaires, shields and baffles. Where possible, keep up-lighting luminaires below overhangs to limit the spill light into the sky.
 - (ii) When using floodlights determining the right mounting height is an important factor. Too low and the necessarily higher tilt angles will result in higher intensities at higher angles with consequentially higher spill and upward light. Too high and light spill can be difficult to contain within the intended area.
 - (iii) Direct lighting where it will not shine directly on highly reflective surfaces (including the surface of natural and artificial bodies of water). Surfaces that are to be illuminated should as far as possible be non-reflective.
 - (iv) As far as possible avoid directing light onto surfaces that are frequently wet, because water increases reflectivity and disorients wildlife by mimicking the surface of natural water bodies.
- (h) Use light sources with appropriate spectral power distributions (SPD).
 - (i) Light sources with relatively blue-rich SPD should be avoided as radiation at the blue end of the spectrum may increase sky glow. Preference should be given to CCT of 3000 K or lower. For CCT in public lighting refer to SA/SNZ TS 1158.6. Note that the concept of CCT, and colour rendering index (CRI) is useful for visual perception only, it does not give an indication of SPD. Light source SPD should be considered and selected based on all factors relevant to the particular objective/application.
 - (ii) Sports fields have high levels of human activity, and task difficulty where visibility is essential, and often taking place during sunset. Sources of up to 5700 K (“daylight”) can satisfy end user preferences while mitigating other adverse effects when implemented by a competent person.

A.3 Reflective properties of an illuminated surface

Conformance to this document is based on direct illuminance only and that has been assumed in the setting of the vertical illuminance limits. The designer and relevant authorities however should be aware of the impact that surface reflectance can have on the overall obtrusive impact of the installation, particularly if it is specular, or exceeds 0.7.

The reflected illuminance component will depend on the intrinsic reflecting properties of the illuminated surface. In many cases the reflected illuminance will be lower where natural grass or asphaltic surfaces are used, but may be significant where the surface is relatively light in colour, e.g. uncoloured concrete, artificial grass with sand infill, or light coloured walls. The reflective properties of the surfaces may vary from season to season, and from year to year. The reflectivity of some materials is not uniform. For example, the reflectance of artificial grass depends on the orientation of the grass and the amount of sand that has been laid. Weathering may also affect the affect the reflectance and diffusion of surfaces over time.

Where there is a choice of surfaces, it is desirable that a surface with the lowest practical reflectance be selected, compatible with the function of the area. Note that reducing the reflectance of the ground plane may increase the surface temperature in daytime.

A.4 Installation and commissioning

The approved lighting design is required to indicate the aiming direction and tilt of all luminaires. If the installation is altered with respect to equipment selection or location, then it can no longer be assumed that the installation will still conform to this document.

A.5 Maintenance

Ongoing conformance to this document is dependent on good maintenance. A build-up of dirt on the luminaires may scatter the light and increase the light spill. Ensure that the aiming of the luminaires is not altered by unintended luminaire movement that may be caused by wind, vibration, impact, cleaning, re-lamping or any other maintenance requirements.

A.6 Design guidelines for horizontal areas

A.6.1 Spill light

Spill light associated with a lighting installation for a horizontal area can be obtrusive when it detrimentally impacts surrounding areas, e.g. dwellings, transport, environmentally sensitive areas, and astronomical observations, see [Clause 2.3.4.1](#).

For sports lighting and similar tasks with a defined area, some light bleed into the area immediately surrounding the specified playing area can be useful as a background for tasks, for amenity, or safety, and may reduce the need for supplementary lighting. Spill light over the boundary is undesirable and will generally lower the efficiency of the lighting installation..

A.6.2 Location of illuminated area/activity

As the vertical illuminance is reduced by the square of the distance, a buffer zone between the area to be lit within the lighting installation and the surrounding boundaries will reduce the vertical illuminance and can also reduce the impact of the luminous intensity.

When there is some flexibility as to where the illuminated area/activity can be placed, it should be located and oriented where it will have the least effect on the environment or existing or potential developments. Advantage should be taken of any screening that may be provided by the surrounding topography or other physical features, e.g. buildings, trees or earth embankments.

A.6.3 Selection of luminaires and light distribution

The selection of luminaires can have a significant effect on the ability to control the light that is emitted outside the boundaries of the properties. It is important that the selected luminaire has a light distribution that is appropriate not only for the overall lighting task, but also to minimize obtrusive light. As a general principal lighting installations that control obtrusive light well will be generally more efficient at lighting the task.

[Figure A.1](#) gives simplified indication of the different types of luminaires and the impact that it has on obtrusive light. It shows preferred and non-preferred luminaire light distributions.

[Figure A.2](#) indicates how the distribution of the luminaire can affect the ability to control obtrusive light. Avoid the use of luminaires that do not have the ability to control, shape, or shield the spread of the light, particularly at the edges of the beam. A lighting installation may benefit from a variety of different distribution types that have different abilities to restrict over-spill at the front of the beam, back-spill, and side-spill.

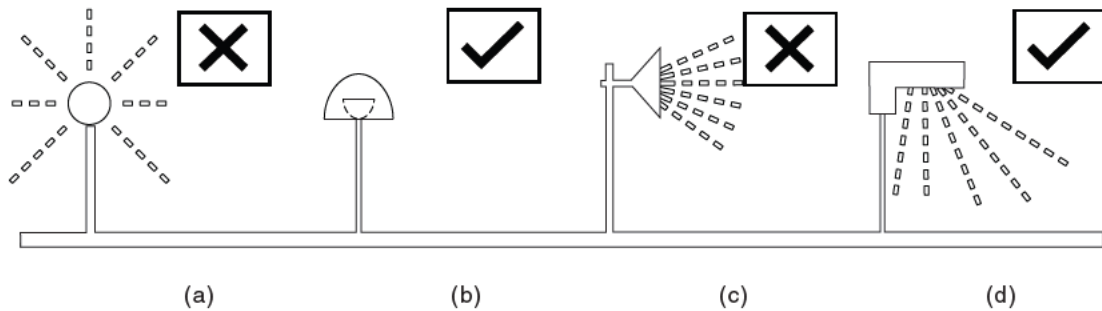


Figure A.1 — Simplified lighting types and their ability to control obtrusive light

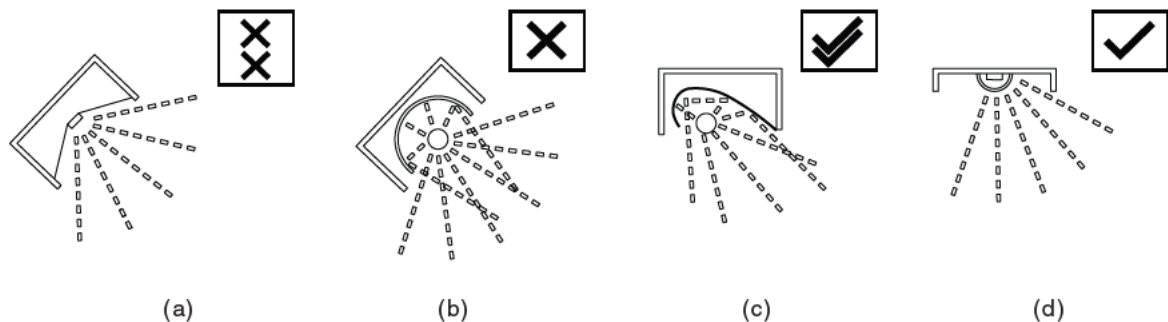


Figure A.2 — Effect of the light distribution of the luminaire on the ability to control obtrusive light

A.6.4 Location and aiming of luminaires

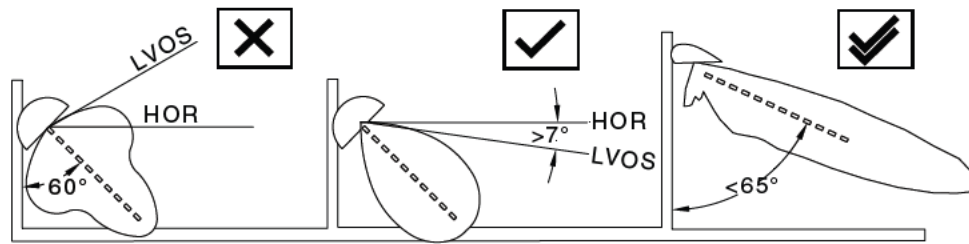
As the illuminance reduces in proportion to the inverse of the square of the distance from the luminaire, it follows that the greater distance the luminaires can be located from the affected property, the lower will be the illuminances at, and beyond the property boundary. The suboptimal location of luminaires and aiming direction can limit the ability to contain the light within the boundaries. As the vertical illuminance is reduced by the square of the distance, a buffer zone between the area to be lit within the lighting installation and the surrounding boundaries will reduce the vertical illuminance.

Luminous intensity does not decrease with distance to the observing position. Shielding and aiming is the primary way of controlling luminous intensity. As the vertical aiming angle, or uplift, of a luminaire is increased there is generally an increase in the distance where relatively high levels luminous intensity is visible. Depending on the light distribution of the luminaire increasing the uplift may also result in a greater upward light ratio.

The objective of the design should be to ensure that, as far as is practicable, direct view of the bright parts of the luminaires is prevented from potential viewing positions beyond the intended area to be illuminated. Where possible, advantage should be taken of the shielding which may be provided, e.g. evergreen trees, embankments, spectator stands or other physical features.

The back-spill of the luminaire (the light that is emitted behind the luminaire) will determine how closely the luminaire can be mounted to the adjacent property.

[Figure A.3](#) indicates how the combination of light distribution and aiming angle can influence the control of the spill light. Asymmetrical distribution luminaires can have the peak intensity at a higher angle while having zero or restricted light above the horizontal plane. This limits the spill light into the sky and the impact of the light on nearby affected properties.

**Key**

LVOS = Limit of view of source

Figure A.3 — Effect of aiming angle light distribution**A.6.5 Luminaire mounting height**

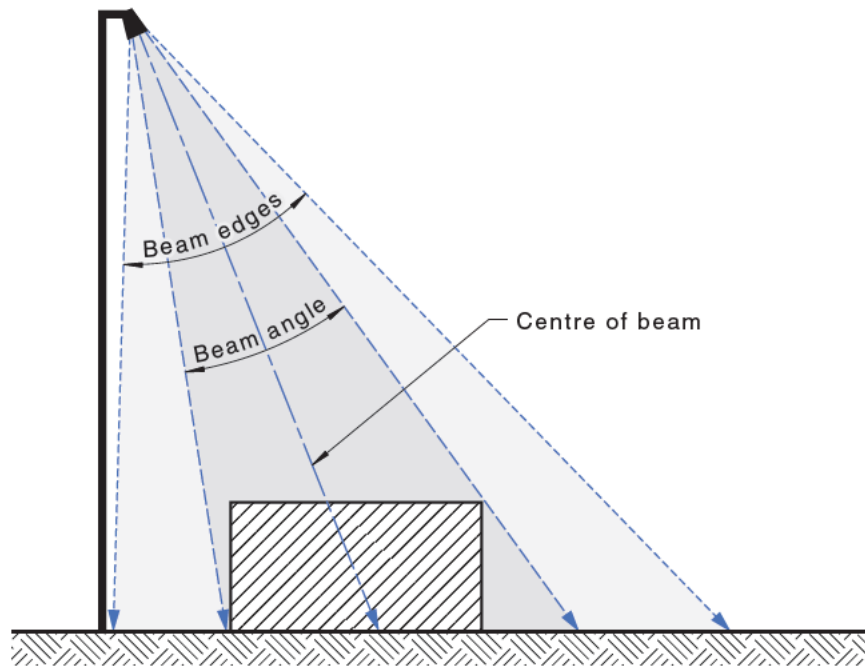
When determining the mounting height of the luminaires, consideration should be given to the following:

- (a) Higher mounting heights may —
 - (i) be more effective in controlling spill light because luminaires with a more controlled light distribution (i.e. narrower beam), and allow the luminaires to be aimed in a more downward direction, provided that tighter beam luminaires are used, making it easier to confine the light to the design area;
 - (ii) decrease the angle of incidence so that the efficiency of the lighting is improved;
 - (iii) result in more scattering in the local atmosphere;
 - (iv) allow fewer luminaires and locations by using higher output luminaires; and
 - (v) if excessively high, increase spill light for a given light distribution due to a consequentially larger illuminated “foot print”.
- (b) Lower mounting heights may —
 - (i) have the advantage of making the lighting installation less obtrusive by day;
 - (ii) increase spill light because, to illuminate the space satisfactorily, as it will often be necessary to use luminaires with a broader beam and to aim the luminaires at higher angles;
 - (iii) require careful selection of luminaires or more luminaires and locations to achieve desired illuminance uniformity; and
 - (iv) decrease spill light for a given light distribution due to a consequentially smaller illuminated “foot print”.

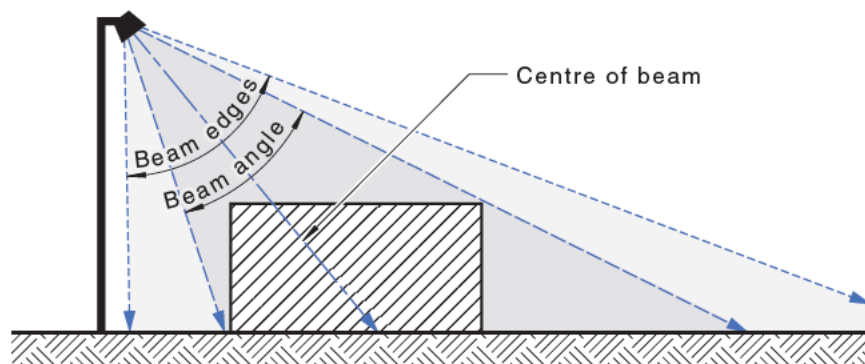
The principles described above are illustrated in [Figure A.4](#).

The use of a combination of luminaires with different light distributions, and outputs at different mounting heights can be used to provide an optimised lighting installation for site specific conditions.

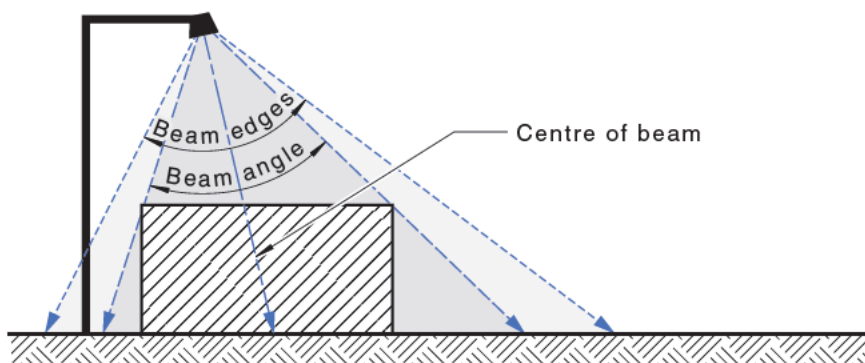
For sports lighting applications, AS 2560.2 provides recommendations for the location, and mounting heights of luminaires as a glare control measure for participants.



(a) High mounted luminaire with narrow beam width and shielding to prevent spill light



(b) low mounted luminaire with shields to prevent spill light



(c) Overhanging symmetrical luminaires to be used on poles located closer to the intended area.

NOTE 1 Lower mounting height means that a higher aiming angle is required and a wider beam.

NOTE 2 As the light distribution is symmetrical the higher aiming angle means that there is direct view of the lamp.

NOTE 3 The cut-off angle indicates the point at which there is no view of the lamp or flashed reflector.

NOTE 4 At low mounting angles the cut-off is often above the horizontal.

NOTE 5 With a forward throw distribution the light has the same or better coverage area as the wide beam light above but the forward throw means that the area can be covered with no light above the horizontal plane.

Figure A.4 — Effect of mounting height and beam angle on spill light

A.7 Design guidelines for externally illuminated vertical objects

A.7.1 General

With vertical objects,(e.g. signs, facades), the luminaire location, type of luminaire, and aiming is often restricted by site specific constraints. These suboptimal conditions will necessitate pragmatic compromises regarding the desired outcomes of the primary purpose of the lighting installation, and obtrusive light control.

The location and nature of the object to be illuminated may create physical limitations on locations of the luminaires due to property ownership extents, pedestrian and vehicular traffic movements, or daytime aesthetics. Luminaires often need to be located relatively close to the target area.

Whereas most horizontal surfaces are lit to conform with the requirements of a particular code or standard, typically for sport or public lighting, most vertical tasks are lit for aesthetics or promotional purposes. There are rarely standards for illuminance or uniformity.

In some situations, a more interesting visual effect may be achieved by selectively lighting highlights rather than blanket uniform lighting of the surface.

A.7.2 Luminance limits

The limiting levels of luminance in [Table 3.4](#) are set to limit the obtrusive light impacts of the lighting. They should not be taken as recommended design levels for facades. Most facades can be effectively lit to much lower levels of luminance. Site trials can be useful to establish the subjective impression for a given site context and ambient lighting conditions.

A.7.3 Location and aiming of luminaires

The setback distance of a luminaire to the vertical object is the equivalent to the mounting height for a horizontal area. Generally, the most effective and efficient location of a luminaire is perpendicular to the surface to be lit; however, this is rarely practical.

When lighting a vertical surface from below a short setback will result in poor uniformity up the face of the building, and also light spill from “overshoot”. Due to the high angle of incidence, the efficiency of the illumination will be relatively low as a result of the cosine factor. This will result in more luminous flux required to achieve the same illuminance. For example, approximately twice the luminous flux is required if the angle of incidence is reduced from 45 to 25 degrees and more flux overshoots to generate sky glow.

For a vertical surface with a luminaire mounted above or below, for a given point at a contestant height, the optimal balance between the inverse square, and cosine effects as the luminaire is moved closer and further from the wall, is an aiming angle such that the angle of incidence is approximately 55°. This will give the most efficient solution, provided the luminaire light distribution is appropriate. The aiming angle will determine the offset distance from the wall.

A combination of different beam angles can be used to closer relate to the shape of the surface to be illuminated.

The location of a luminaire can influence the potential for light spill into the sky, as indicated in [Figure A5](#). Additional control measures to limit the spill light into the sky may be achieved by capturing

the light overshoot with an obstruction ([Figure A5\(a\)](#)), lighting from above ([Figure A5\(c\)](#)), or using a greater setback and a luminaire with a relatively narrower beam with a sharp cut off at the top of the distribution ([Figure A5\(d\)](#)).

Externally lit signs and billboards should be lit from the top.

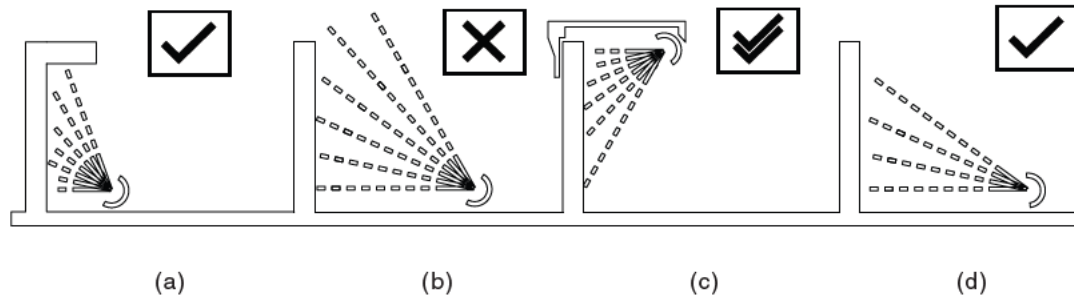


Figure A.5 — Effect of luminaire location upward spill light

A.7.4 Spill light

Unlike horizontal areas, spill light associated with vertical objects often passes the target object so that it can be a direct source of obtrusive light. In addition, spill light on objects surrounding the task object can detract from the lighting effect.

If an object is to be lit so that the lighting appears to be uniform it is often easier to use a luminaire with a relatively wide distribution. While this may produce the desired visual impact, it is generally less efficient and generates significant spill light, see [Figure A6\(a\)](#). Luminaires with a narrower light distribution reduces the overshoot improving illumination higher up, and efficiency, see [Figure A.6\(b\)](#).

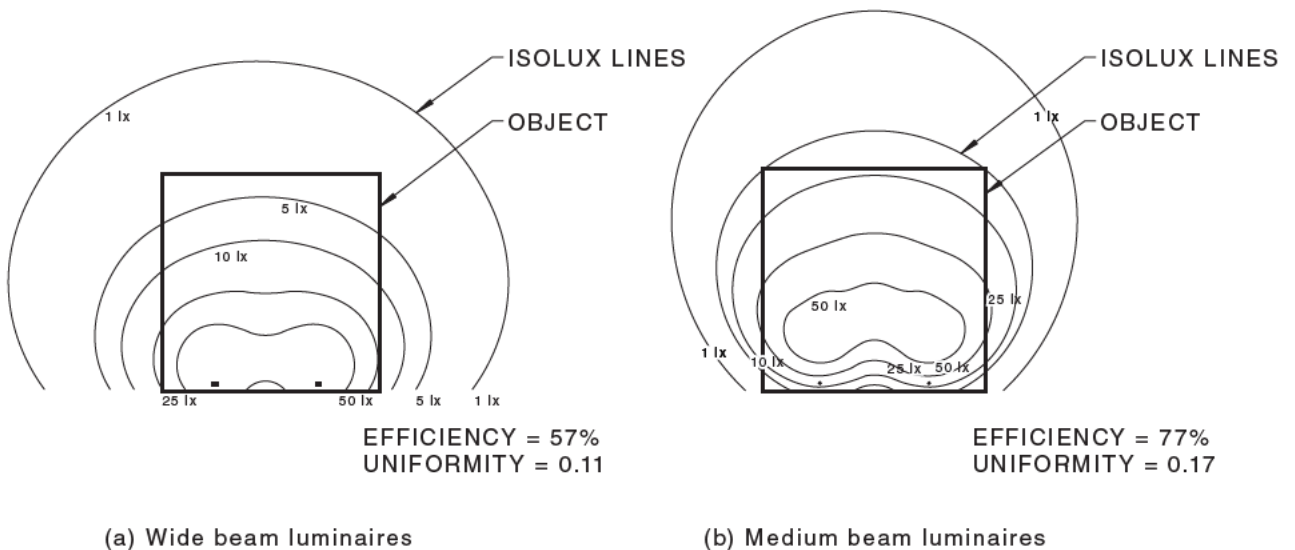


Figure A.6 — Example of vertical object lit with different beam types

While maintaining illumination higher up, luminaires that are too close will increase spill light to the sky due to the larger angle of incidence, see [Figure A.7\(a\)](#). Efficiency and uniformity can be improved while minimising spill light by using relatively more luminaires with a relatively lower output, see [Figure A.7\(b\)](#). While relatively uniform, especially lower down, the illuminance falls off higher up if too close.

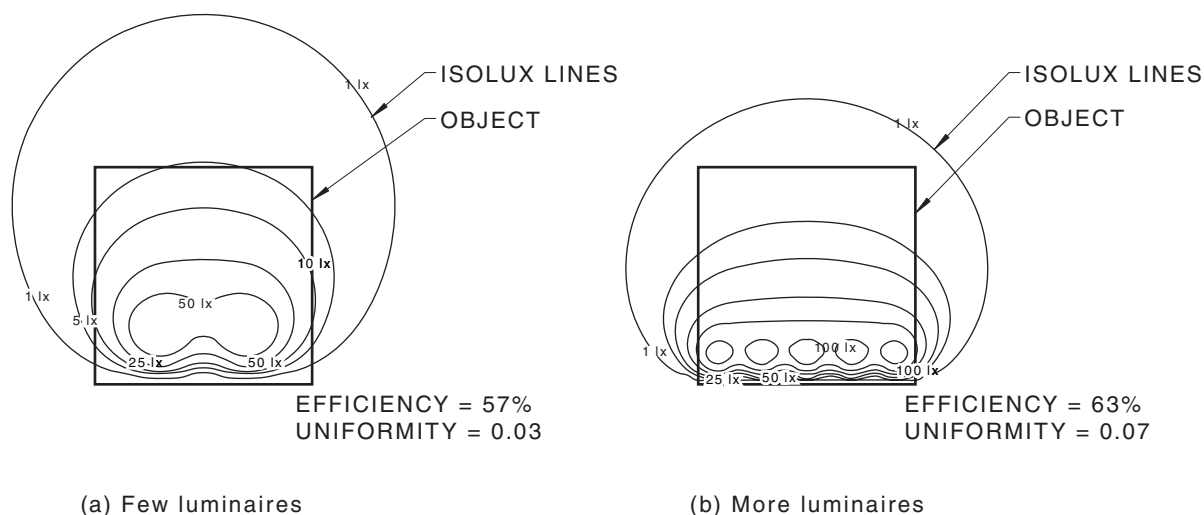


Figure A.7 — Example of vertical object lit with relatively close luminaires

A combination of wider beam luminaires covering lower parts, and more narrow beam luminaires covering the upper parts may provide more uniform lighting, and also more focused light reducing spill light, see [Figure A.8](#).

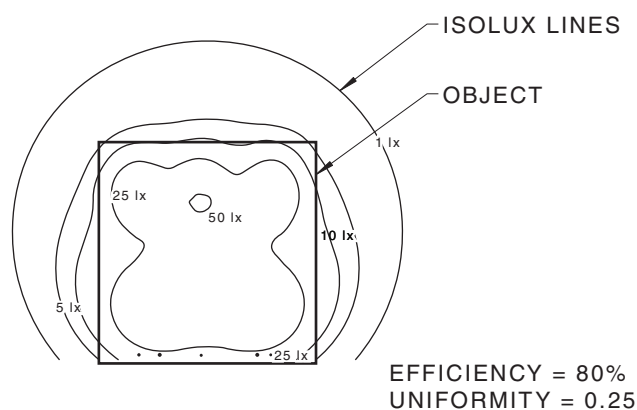


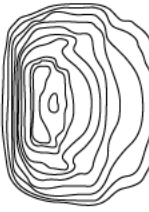
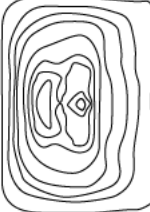
Figure A.8 — Example of vertical object with wide and narrow beam types

A.8 Classification of luminaires for floodlighting

[Figure A.9](#) shows a simple classification of floodlights that has been developed for sports lighting. AS 2560.1 classifies luminaires by the beam shape and directional qualities of the light distribution. Luminaire distributions that are asymmetrical give the ability to direct the light without projecting light at angles near the horizontal direction and above.

Louvres, baffles or shields may be fitted to floodlights to control spill light. These may be internal or external. The baffles and louvres will affect the photometric distribution of the light and may affect conformance to the original functional requirements for the lighting installation. Photometric files that have been created with any such shield accessories should be used. Note that the mechanical strength of the luminaire fixings and supports may be affected because of the additional wind loading the devices impose.

Figure A.9 — Classification of exterior floodlights

Type	Typical appearance	General description	Characteristic beam shape	Characteristic cartesian intensity distribution
A		Rotationally symmetrical projector giving a circular shaped beam with a typical beam angle of 5°–40°. The peak intensity is generally normal to the light emitting surface. The light emitting surface may have an uplift from 45°–70° in normal application.		
B		Bi-symmetric floodlight giving a rectangular shaped beam. The beam angle may be similar in the vertical and horizontal planes, or may be narrower in the vertical plane ('letterbox'). Beam angles may be 50°–70° horizontally, and 15°–40° vertically. The peak intensity is normal to the light emitting surface. The light emitting surface may have an uplift from 45°–70° in normal application.		
C		Asymmetrical in the vertical plane giving a fan shaped beam. The peak intensity is typically 30°–40° above the normal to the light emitting surface. The light emitting surface may have an uplift from 0°–40° in normal application. There is some 'run-back' of intensity above the peak intensity.		
C cut-off		Asymmetrical in the vertical plane giving a fan shaped beam. The peak intensity is typically 60° to the normal to the light emitting surface. The light emitting surface may have an uplift from 0°–10° in normal application. There is rapid 'run-back' of intensity above the peak intensity		
D		Asymmetrical in the vertical plane giving a fan shaped beam. The peak intensity is typically 30° to 65° above the normal to the light emitting surface. The luminaire is non-aimable and light emitting surface is fixed at 0° in normal application (it may be set at up to 20° with appropriate fixings). There is rapid 'run-back' of intensity above the peak intensity		

Appendix B (informative)

Design documentation

B.1 Scope of Appendix

This appendix sets out the information that should be provided to the relevant authority to facilitate assessment of a proposed lighting scheme for conformance to environmental design objectives, particularly those objectives that relate to the light technical parameters given in [Tables 3.2 to 3.4](#) and [Table 4.2](#) when required for public lighting. See also [Clause 1.4](#) with respect to demonstrating conformance to the requirements of this document.

The provision of much of the information needed to facilitate the design, particularly to satisfy the environmental objectives, is the responsibility of the client.

The client should also make the lighting designer aware of any additional requirements or differences in the format of information needed by the relevant authority that is to assess the particular development.

The lighting designer should demonstrate conformity of the design of the installation with the light technical parameters of [Tables 3.2 to 3.4](#) and [Table 4.2](#) when required for public lighting.

B.2 Statement of objectives

A statement should be provided indicating the design objectives for the lighting installation, including—

- (a) the proposed lighting levels for the activity, including reference to relevant Australian or Australian/New Zealand Standards or other authoritative lighting provisions, as appropriate; and
- (b) the environmental factors that have been taken into account, the specific features of the design which have been incorporated and how they overcome existing or potential problems.

B.3 Supporting documentation

B.3.1 Information relating to the environment

The following information should be provided on the environment in which the Lighting Installation is to be located:

- (a) Details of the facility to be lit, including; its location on the site, the nature of the surface to be illuminated, and the nature and location of adjacent properties, particularly those properties most likely to be affected by spill light.
- (b) The nature and location of physical features (e.g. spectator stands or trees) that might restrict spill light.
- (c) Topographical information for the site of the proposed lighting system including data on height differences of adjacent properties relative to the site.
- (d) Details of any transport system in proximity to the lighting installation that utilizes signalling systems that may be affected.

- (e) Details of any road lighting or other public lighting existing in the immediate vicinity of the proposed lighting installation and any information needed to support the operational functionality of control systems.
- (f) Details of the locations of nearby astronomical observatories that may be affected by spill light (see Clause 2.3.4).
- (g) Details of any nearby environmentally sensitive areas.

B.3.2 Information relating to the lighting installation

The following information relating to the lighting installation should be provided:

- (a) A statement of the design objectives for the lighting installation.
- (b) Plans illustrating the geometric relationship between the locations of the luminaires and calculation points considered in the design.
- (c) Details of the luminaires including catalogue number, photometric files, luminous flux and maintenance factor(s).
- (d) The computer program and version used for the calculations . See [Section 5](#)
- (e) Calculated values of the relevant light technical parameters and other information needed to support the basis of the design (see [Tables 3.1](#) to [3.4](#) and [Table 4.2](#) when required for public lighting).
- (f) Information needed to support the operational functionality of control systems.
- (g) Aiming angles and mounting heights for all luminaires.
- (h) A declaration of conformance to this document and compliance with any applicable legislative or statutory requirements.

Appendix C (informative)

Impact of outdoor lighting on flora and fauna

C.1 Introduction

This appendix provides general guidance on the impacts of artificial light on the environment, legal obligations under Australian and New Zealand environmental regulation and the environmental impact assessment process. Details for the New Zealand environmental regulatory requirements relevant to light pollution are not provided. For specific information on environmental regulation advice should be sought from the relevant authority in both Australia and New Zealand. For any lighting project where light is visible outdoors the risk assessed and adaptive management framework described in the [Convention on the Conservation of Migratory Species of Wild Animals \(CMS\) Light Pollution Guidelines for Wildlife](#) can be applied by anyone in any jurisdiction and context.

C.2 Effects of artificial light on plants, animals and ecosystem function

As all life on earth has evolved under predictable patterns of light and darkness, most organisms are highly adapted to respond to changes in natural light cycles (including daily, lunar and annual fluctuations). As a consequence, the environmental impacts of artificial light are varied and complex. Artificial light at night can affect the physiology of plants and animals, behaviours and migratory patterns of animals, and ecosystem processes. These effects are likely to be greatest when introducing artificial light into naturally dark places.

Artificial light can affect the structure of ecological communities. For example, nocturnal lighting can alter the timing of growth, flowering and senescence in plants, which may have flow-on negative implications for pollinators and herbivores. Conversely, changes in the abundance of pollinators can have implications for plant reproduction. Even apparent benefits may actually be ecologically costly. Insect predators (insectivores) may gain increased foraging success around street or other lights due to the large number of light-attracted insects that gather there. However, light attracted insects have a higher risk of predation and may simply die from exhaustion due to being “trapped” by the lights. This in turn may change insect population structure and lead to long-term declines in insectivore numbers. Changes to prey abundance are likely to have implications for predatory species.

Effects of artificial light on wildlife can include behavioural changes (including disorientation and other shifts in activity and sleep patterns), and physiological impacts (including reduced reproductive success or survival and compromised immunity). Light-related disorientation occurs when an animal's natural visual cues are overridden by more dominant artificial light and an animal is unable to perform natural behaviours. Behavioural impacts can be mediated through a perceived or real increase in predation risk (i.e. predators can more easily see prey), which causes prey species to avoid leaving a refuge, stop them foraging or undertaking other biologically important behaviours. Actual predator/prey relationships may also change under altered light conditions, which can lead to population scale shifts in the abundance of some groups. Physiological impacts occur when hormones that are naturally mediated by changes in daily patterns of light are instead regulated, masked or otherwise subject to interference by the presence of artificial light. While species may vary in their ability to detect or see different colours of light, the physiological effects of light at night are often mediated specifically by the presence of blue wavelengths of light.

The largely negative effects of light at night can be caused by the presence of light sources in the immediate vicinity, as well as from sky glow (scattered light originating from a light source that may be tens of kilometres away). The impacts of light at night extend beyond species living in terrestrial environments; marine and other aquatic organisms have also evolved under constant light cycles and

use light intensity and spectra as cues. Light at night in aquatic systems can affect vertical migration patterns of plankton and other organisms and may interfere with offspring production and hatching in fish.

The environmental effects associated with natural variation in light occur at very low light levels (e.g. predator/prey interactions and nocturnal singing behaviour in birds can be altered by the waxing and waning of the moon), and different organisms may be sensitive to different wavelengths of light, including some outside of the human visual spectrum. Introduction of artificial light into naturally dark areas will result in the greatest environmental impact; however, due to the scattering of light particles, the cumulative impacts of many light sources can be significant within the local environment but may also influence ecological processes up to tens of kilometres from the source.

Where artificial light is present in environments in which protected species or ecological communities are found, artificial light has the potential to significantly affect a protected species or ecological communities through, for example, stalling the recovery of a threatened species or community or disrupting the lifecycle of a migratory species. The limits identified in [Tables 3.2 to 3.4](#) and [Table 4.2](#) have not been derived to address specific species or ecological community needs and so conformance with this document may not be sufficient to meet environmental regulation. To address these considerations for specific listed entities, a risk assessed, and adaptive management approach should be undertaken consistent with the *Light Pollution Guidelines for Wildlife*.

C.3 Self-assessment of whether an action should be referred under the Australian Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government's central piece of environment legislation. For the purposes of the EPBC Act, a self-assessment should be undertaken to determine whether a proposed action will need formal assessment and approval under the EPBC Act. A referral will be the principal basis for the Minister's decision as to whether approval is necessary.

Below is a list of Australian Government resources that can assist in determining whether or not lighting projects may need to be referred under the EPBC Act. In accordance with the EPBC Act, it is an offence to have a significant impact on a [Matters of National Environmental Significance](#) (MNES).

The resources are as follows:

- (a) To determine whether lighting that is visible outdoors is likely to have a significant impact, the [Environment assessment and approval process](#) for understanding how the EPBC Act may or may not apply.
- (b) The department's [Protected Matters Search Tool](#) for generating a report that summarizes [MNES](#) that may occur in, or adjacent to, your project area.
- (c) The [Species Profile and Threats Database \(SPRAT\)](#) for finding out more information about protected species and ecological communities.
- (d) The [Significant Impact Guidelines](#) 1.1 can assist in deciding whether the proposed project is likely to have a significant impact on the environment.
- (e) Where artificial lighting may potentially have a significant impact on a MNES, the [CMS Light Pollution Guidelines for Wildlife](#) provides a risk assessed and adaptive management approach to managing light for the benefit of listed species and ecological communities.

For any lighting project where light is visible outdoors the risk assessed and adaptive management approach described in the CMS [Light Pollution Guidelines for Wildlife](#) can be used by anyone.

C.4 Environmental Impact Assessment Overview

Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, considering the inter-related socio-economic, cultural and human safety impacts, both beneficial and adverse. EIA is a tool used to identify potential impacts at an early stage in project planning and design and devise solutions to avoid adverse impacts. By using an EIA approach both environmental and economic benefits can be achieved by avoiding treatment and cleanup costs, project time increases and inconsistency with laws and regulations. This tool is commonly used to assess proposed developments in relation to environmental legislation, but the concept can be scaled to any sized project.

For further details about applying an EIA to lighting projects refer to the *CMS Light Pollution Guidelines for Wildlife* and ancillary documents.

Appendix D **(informative)**

Lighting of flags and banners

D.1 Introduction

The lighting of flags and banners is inherently inefficient due to the variation in the location of the flag. As a result, the majority of the light contributes directly to sky glow.

Where there is a requirement to light flags and flagpoles the lighting should be designed to maximize the efficiency of the lighting and the flags should not be overlit.

Consideration should be given to whether there is sufficient ambient illumination to adequately display the flags.

The closer the luminaires are to the base of the flagpole, the less efficient the illumination of the flag and the higher the contribution to sky glow.

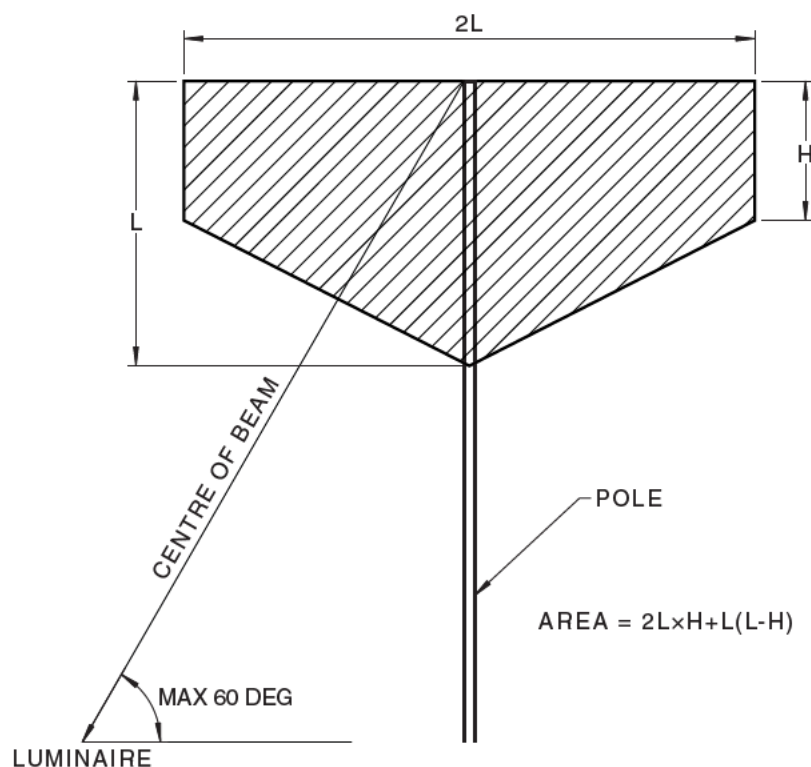
The beam width of the light source should be minimised to match the span of the flag.

Where possible the luminaires should be located so that the angle of incidence of the light to the fully unfurled flag is less than 60 degrees

D.2 Utilization of flag illumination

For calculating the utilization of the flag illumination, the area of the calculation plane should be defined as shown in [Figure D.1](#)

The calculation plane shall be vertical and perpendicular to the luminaire, in plan view.



where

L = length of the flag

H = height of the flag

Figure D.1 — Area of calculation plane

$$UF = E_{av} \times A / \phi$$

D.1

where

UF = utilization factor

E_{av} = average illuminance of the flag calculation plane

A = flag calculation plane

ϕ = luminaire Flux

The utilization factor (UF) should not be less than 0.1

D.3 Flag illuminance

The required illuminance for a flag will depend on the viewing distance and the ambient environment. The flag should not be overlit as the lighting is designed to bring awareness to the flag rather than convey a specific message.

D.4 Selection of luminaire

The luminaire should be selected so that its beam width is close to the width of the flag calculation plane.

A luminaire that has a distribution that is elongated in the horizontal plane will provide a higher uniformity and lower utilization factor.

Appendix E (informative)

Field measurements

E.1 Scope

This Section provides guidance on illuminance and luminance measurements that may be required for the assessment of new or existing installations. Illuminance values are specified in [Tables 3.2](#) and [Table 4.2](#).

On site assessments may be required by an authority for situations where no photometric data are available to provide calculations of light technical parameters (LTP) or where the installation is not strictly in accordance with the design. This may also be required to confirm that the levels of obtrusive light are not excessive.

Measurement is not required for demonstrating conformance and where an installation is installed in accordance with a conforming design then it shall be deemed-to-conform, irrespective of measurements.

Where luminance measurements are to be undertaken to assess the LTPs in [Clause 3.3.3](#), guidance is provided in [Clause E.4](#).

E.2 Factors that influence the uncertainty of the results

Similar to lighting designs, on-site measurements are subject to many variables, and measurements need to be corrected for sources of error, or sources of error need to be accounted for in determining the acceptance limits for compliance assessments to the LTP limiting values in [Tables 3.2](#) to [3.4](#) and [Table 4.2](#).

These include but are not limited to—

- (a) Extraneous light as follows:
 - (i) Reflected light originating from the luminaires in the design.
 - (ii) Additional reflected light from other light sources.

NOTE Extraneous light may be compounded by wet surfaces.
- (b) Direct light as follows:
 - (i) From other light sources.
 - (ii) From the moon and overcast sky.
- (c) Variations in supply voltage.
- (d) Light sources as follows:
 - (i) Faulty luminaires.
 - (ii) Luminaires operating incorrectly.
 - (iii) Aged light sources.

- (iv) Build-up of dirt and bugs/webs on the luminaires.
- (e) Interference by trees, foliage or other obstructions.
- (f) Calibration of illuminance meters as follows:
 - (i) Accuracy.
 - (ii) Linearity.
 - (iii) Cosine response.
 - (iv) Spectral response calibration.

Correction should be made for all of the above calibrations using the calibration reports for the meter.

Knowledge of the spectral output of the luminaires is especially important when considering sources with large 'spikes' in the spectrum such as RGB LEDs, white LEDs, fluorescents and metal halides. Correction factors for these sources may be provided in calibration reports.

- (g) Uncertainty in measurement as follows:
 - (i) Light meter placement and orientation.
 - (ii) The resolution of a light meter.

The resolution of the light meter should be at least an order of magnitude greater than the calculated/measured values. This could significantly impact on the measured illuminance and also on intensities calculated from such measurements.

E.3 Check measurements

Credible measurements of the light technical parameters in [Tables 3.2](#) to [3.4](#) and [4.2](#) are often difficult to perform and can be complex or limited by access to relevant measurement locations and the ability to identify stable ambient lighting conditions. Where such measurements are requested, they should be undertaken by persons who are professionally qualified and competent in the discipline of illuminating engineering.

It will be necessary to compensate for the variables detailed in [Clause E2](#) and to take care to avoid extraneous light.

It may be easier to take two sets of measurements; one with the installation turned off and another with it turned on. The difference between the two measurements will be the approximate levels from the installation. The results will still include both the direct and reflected illumination components, whereas conformance with the standard is based on the direct illuminance only. It is not possible to isolate this reflected component in a field measurement. This method is only valid if the background contribution to the lighting is consistent for both measurements.

The measurements should be modified to allow for the factors identified in [Clause E2](#) including the supply voltage, if appropriate, and lumen depreciation.

It is not possible to directly measure the luminous intensity as a field measurement.

The measured levels will be higher than the calculated levels, and will include a reflected component. As a result, adjusted measurements may exceed the limits in this document but the installation may still conform if the reflected component of the illumination is subtracted.

As a result of the factors detailed above, the measured results can only be used as an indication of the lighting levels as a basis of discussion with the client rather than a definitive measure of conformance.

E.4 Luminance measurements

E.4.1 General

Luminance measurements are sometimes requested, as part of an approval, to demonstrate conformance to [Clause 3.3.3](#).

Where luminance measurements are required, the information in [Clauses E.4.2](#) and [E.4.3](#) are provided for the guidance of the person taking the measurements and the interpretation of those measurements.

E.4.2 Direction of measurement

The luminance should be measured from all assessment planes and roads where the luminous surface is visible.

E.4.3 Factors that influence the uncertainty of the results

E.4.3.1 General

On-site measurements are subject to many variables that could impact the measured values.

These include, but should not be limited to- extraneous light. Where practicable the luminance produced by the extraneous light should be subtracted to obtain the luminance of the object of interest.

E.4.3.2 Calibration of the luminance meter

The luminance meter should be calibrated for the following:

- (i) Accuracy.
- (ii) Linearity.
- (iii) Spectral response calibration.

Corrections should be made for all of the above using the calibration for the meter or included in the uncertainty estimate of the measurement.

E.4.3.3 Meter acceptance angle

The acceptance angle of the meter should be smaller than the portion required to be measured.

For internally illuminated, diffuse signs, the area of measurement should cover a large area of the sign, or several representative points should be averaged.

The measurements should be taken close to perpendicular to the surface being measured or from the observers location.

Some meters exhibit parallax error as the angle from perpendicular increases. Care should be taken where there are variations in luminance, particularly around the edge of the sign.

Where a meter can be focused the measurement should be taken from the focused image

E.4.3.4 Non-uniform signs

Where the luminance of the surface of the sign or lit object is non-uniform, average luminance shall be determined by a uniform array of circles. The circles should not extend beyond the boundary of the illuminated area.

E.4.3.5 Coloured surfaces

Where the surface colour of the object can be changed, other than repainting, the measurements should be taken as a full white surface.

Where the surface is coloured with a single fixed colour the luminance should be averaged over the surface

Where the surface has multiple colours the average luminance should be either —

- (a) the average of a series of measurements that cover a large area of the sign and include all colours; or
- (b) a weighted average in accordance with the relative areas of the particular colours.

E.4.3.6 Dimmable lighting

Where the light source is dimmable the light should be dimmed to achieve the required maximum luminance and the dimming level recorded as part of the report.

Any controls used in the initial installation are to remain operational, at the design settings, through the life of the installation.

Bibliography

AS 2560.1, *Sports lighting, Part 1: General principles*

AS 2560.2, *Sports lighting, Part 2: Sports lighting specific applications*

SA SNZ TS 1158.6, *Lighting for roads and public spaces, Part 6: Luminaires — Performance*

CIE 001-1980, *Guidelines for minimizing urban sky glow near astronomical observatories (Joint Publication IAU/CIE)*

CIE 126, *Guidelines for minimizing sky glow*

CMS Light Pollution Guidelines for Wildlife.

UN Environment Programme Convention on the Conservation of Migratory Species of Wild Animals.
Light Pollution Guidelines: UNEP/CMS/Resolution 13.5/Annex

Australian Government – Department of the Environment and Energy & Government of Western Australia, Department of Biodiversity, Conservation and Attractions. *National Light Pollution Guidelines for Wildlife Including marine turtles, seabirds and migratory shorebirds*

Further reading

CIE 150, *Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations*

Standards Australia

Standards Australia is an independent company, limited by guarantee, which prepares and publishes most of the voluntary technical and commercial standards used in Australia. These standards are developed through an open process of consultation and consensus, in which all interested parties are invited to participate. Through a Memorandum of Understanding with the Commonwealth government, Standards Australia is recognized as Australia's peak national standards body.

Standards New Zealand

The first national Standards organization was created in New Zealand in 1932. The New Zealand Standards Executive is established under the Standards and Accreditation Act 2015 and is the national body responsible for the production of Standards.

Australian/New Zealand Standards

Under a Memorandum of Understanding between Standards Australia and Standards New Zealand, Australian/New Zealand Standards are prepared by committees of experts from industry, governments, consumers and other sectors. The requirements or recommendations contained in published Standards are a consensus of the views of representative interests and also take account of comments received from other sources. They reflect the latest scientific and industry experience. Australian/New Zealand Standards are kept under continuous review after publication and are updated regularly to take account of changing technology.

International Involvement

Standards Australia and Standards New Zealand are responsible for ensuring that the Australian and New Zealand viewpoints are considered in the formulation of international Standards and that the latest international experience is incorporated in national and Joint Standards. This role is vital in assisting local industry to compete in international markets. Both organizations are the national members of ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission).

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Economic Memorandum – Section 17 Comments on the Oaks Living Limited Referral Application (FTRA2603) under the Fast-track Approvals Act 2024

To: Resource Consents Team, Queenstown Lakes District Council

From: Greg Akehurst, Director, Market Economics

Dr Maggie Hong, Senior Consultant, Market Economics

Date: 15/07/2026

Executive Summary

The proposed Waitiri Development is a significant residential-led project that would deliver approximately 1,115 residential lots and supporting community infrastructure. While the proposal has the potential to generate construction activity and contribute to housing supply, the economic benefits identified in the accompanying Economic Impact Assessment (EIA) are primarily based on gross activity measures and do not adequately demonstrate the extent to which these benefits are net additional, rather than reflecting a redistribution or acceleration of activity that may otherwise occur elsewhere in the district. Key economic concerns identified are:

- The EIA does not consider Queenstown Lakes District Council's housing capacity evidence, including the Housing and Business Development Capacity Assessment (HBA 2025) and 2026 HBA Addendum, which indicates that infrastructure capacity rather than land supply is a key constraint on housing delivery. The assessment also provides limited analysis of whether the proposed housing mix and location align with identified housing needs.
- The dispersed five-precinct development pattern raises questions regarding the efficiency and long-term costs of infrastructure provision, service delivery, community facility provision and potential Council asset management obligations.
- The EIA provides limited consideration of displacement effects, opportunity costs and interactions with other significant residential developments within the district, including Homestead Bay, Ridgeburn/Morven Ferry and Simplicity Living – Te Pūtahi Ladies Mile.
- The potential reverse sensitivity effects associated with locating residential development near the Victoria Flats Landfill have not been assessed. This includes the potential economic implications if residential activity were to constrain the landfill's ongoing operation, future expansion or operational flexibility. An indicative assessment undertaken by Market Economics suggests that the potential costs associated with constraining or relocating landfill operations could be material, with an estimated disbenefit in the order of \$138 million.

Overall, while the Waitiri Development may generate economic activity, the referral application does not yet establish that the proposal would deliver significant net regional or national economic benefits after considering existing housing capacity, infrastructure constraints, market interactions, opportunity costs and potential impacts on regionally significant infrastructure.



1. Introduction

Market Economics (ME) has been engaged by Queenstown Lakes District Council (Council) to provide independent economic assessment on the referral application lodged by Oaks Living Limited under the Fast-track Approvals Act 2024 (FTAA).

This memorandum has been prepared to assist Council in responding to the Minister's invitation for comments under section 17 of the FTAA. The comments are limited to economic matters relevant to the Minister's consideration of whether the project should be referred to the fast-track approvals process, having regard to the matters set out in sections 21 and 22 of the FTAA.

This memorandum is not a substantive economic assessment of the proposal and does not consider whether any approvals should ultimately be granted. Rather, it identifies the principal economic considerations arising from the referral application and highlights matters that may warrant further assessment should the project proceed through the FTAA process.

2. Economic Matters Relevant to Referral

This section provides comments on the information accompanying the referral application, having regard to the matters relevant to the Minister's consideration under sections 21 and 22 of the FTAA. The review has considered the referral application and the following supporting information:

- Appendix A – Masterplan;
- Appendix B – Project Area Maps;
- Appendix C - Economic Impact Assessment (EIA) prepared by Property Economics; and
- Section 17 Technical Memo (FTRA2603) – Landfill and Environmental Impact Technical Commentary.

The comments focus on the key economic matters relevant to the referral decision, including the extent to which the proposal demonstrates significant economic benefits and contributes to housing supply and a well-functioning urban environment. The section also identifies economic matters that are not fully addressed in the referral application and would benefit from further assessment should the project proceed to a substantive application.

2.1 Housing Need and Contribution to a Well-functioning Urban Environment

The referral application identifies the delivery of approximately 1,115 residential lots across five development areas as a key benefit of the proposal and, given its scale, the development has the potential to make a significant contribution to the district's housing supply. The proposed development also includes supporting community infrastructure, including a village precinct, school, recreational facilities and open space, which have the potential to support the establishment of new residential communities.



While the economic assessment correctly identifies housing affordability as a key issue for the Queenstown Lakes District, it provides limited assessment of the district's current housing capacity and sufficiency. In particular, the assessment does not consider the proposal in the context of the Queenstown Lakes District's current strategic housing evidence, including the HBA 2025 and the 2026 HBA Addendum. These documents assess the district's housing capacity, sufficiency position and infrastructure constraints, including the additional development capacity enabled through the Decisions Version of the Urban Intensification Variation (UIV). The 2026 HBA Addendum concludes that the district has sufficient reasonably expected to be realised (RER) housing capacity to accommodate projected medium-term demand, with a district-wide surplus of approximately 6,100 dwellings, including around 4,400 dwellings within the Whakatipu Ward. It also identifies infrastructure capacity, rather than zoning, as the principal constraint on the delivery of additional housing. However, the economic assessment does not consider these findings or explain how the proposal responds to the district's current housing capacity and infrastructure context. As a result, it does not establish the extent to which the additional housing supply provided by the proposal addresses an identified shortfall beyond existing planned and feasible supply.

The EIA also assumes that increasing residential supply will improve housing affordability but provides limited analysis of whether the proposed housing mix is aligned with the district's identified housing needs. The proposal includes a broad range of residential lot sizes, including high-, medium- and low-density lots, together with a substantial proportion of large-lot residential, rural living and rural allotments. However, the assessment does not consider the likely dwelling typologies, price points, target market or tenure outcomes associated with these different lot types, nor does it assess the extent to which they are likely to improve housing affordability or meet identified workforce housing needs.

While increasing housing supply may improve overall housing choice, it cannot be assumed that all forms of residential development contribute equally to affordability outcomes. Large-lot residential and rural living allotments are typically associated with higher-value housing products, and the assessment does not demonstrate how these components of the proposal address the affordability issues identified within the district. Similarly, the assessment provides little consideration of whether the location of the development, within the Gibbston Valley and some distance from the district's principal employment areas, influences its ability to meet identified housing needs. Consequently, the relationship between the proposed housing supply and the district's housing challenges is not clearly established.

A further consideration is that the development is proposed across five geographically separate precincts rather than as a contiguous urban extension. While the referral application presents these precincts as an integrated master-planned development, the EIA provides limited consideration of the implications of this dispersed development pattern. In particular, there is little assessment of how the separation between precincts may influence the efficient provision of infrastructure and community services, staging of development, accessibility between precincts, travel demand, or the viability of shared facilities such as the proposed village centre and school. For example, the Ara Tihi (Eastburn)



precinct is located on Crown Terrace Road and is accessed via a different section of the state highway network from the other four precincts, illustrating the dispersed nature of the proposed development and the potential challenges associated with integrating infrastructure, services and community facilities across the project area.

The EIA also does not consider the longer-term ownership, operation and maintenance costs associated with the infrastructure and community assets required to service the five precincts, including roads, water supply, wastewater, stormwater, parks, landscaping and other public assets. To the extent that these assets are ultimately vested in the Council, the dispersed nature of the development may have implications for the long-term cost of infrastructure provision and asset management. These lifecycle costs have not been assessed and are relevant to understanding both the long-term efficiency of the proposed urban form and the proposal's overall net economic benefits. Consideration of these costs would assist in assessing whether the proposal contributes to a well-functioning urban environment under section 22(2)(a)(iii) and delivers significant regional or national economic benefits under section 22(2)(a)(iv) of the FTAA.

The matters identified above do not necessarily diminish the potential contribution of the proposal to housing supply. However, additional assessment of the proposal's relationship to the district's current housing capacity, the suitability of the proposed housing mix and location to address identified housing needs, and the implications of the dispersed development pattern would assist in demonstrating the extent to which the proposal contributes to housing supply and a well-functioning urban environment.

2.2 Net Economic Benefits, Displacement and Opportunity Costs

The economic assessment concludes that the proposal would deliver significant economic benefits through construction expenditure, employment generation and wider economic activity. These estimates provide an indication of the scale of economic activity associated with the proposed development and demonstrate that the project would represent a substantial investment within the district and wider region.

The assessment is, however, primarily based on estimating the gross economic impacts of the proposal using expenditure and input-output multiplier modelling. Section 5.2 of the assessment notes that the modelling is based on the development's gross economic activity and "does not consider redirecting growth opportunities from elsewhere in the catchment", indicating that this would be considered separately. However, no substantive assessment of the extent of this potential redirection, displacement or substitution of economic activity is subsequently provided.

This is an important consideration given the scale of residential development that has already been approved or is proposed within the Queenstown Lakes District. For example, the recently approved Homestead Bay development will deliver approximately 2,800 residential dwellings, together with a commercial retail precinct, representing a substantial addition to the district's future housing supply. The Ridgeburn residential substantive application is another Fast-track project located at Morven



Ferry Road (122 Morven Ferry Road, Arrow Junction), near Queenstown, in a predominantly rural area. The project proposes approximately 1,250 dwellings (with the substantive application providing for approximately 1,210 residential units, including 180 affordable dwellings). The application has been lodged and is currently progressing through the expert panel process. The Simplicity Living – Te Pūtahi Ladies Mile project has also been successfully referred into the Fast-track regime. This project proposes approximately 1,100 residential units at Ladies Mile, comprising a high-density, comprehensively designed development including apartment-style housing. The proposed intensity represents a significant departure from the existing PDP zoning framework for the Ladies Mile area.

In the absence of an assessment of the existing development pipeline and likely market interactions, it is difficult to determine the extent to which the forecast economic activity associated with the Waitiri development represents net additional growth for the district, rather than the redistribution, substitution or acceleration of development that may otherwise occur elsewhere within Queenstown Lakes District. This issue is particularly relevant given other significant residential development proposals in the district, including the Ridgeburn/Morven Ferry development, which may provide an alternative source of residential supply within the district. The extent to which demand would be met by Waitiri versus other planned developments has not been assessed. This is relevant because economic benefits associated with one development may be overstated where they arise through the displacement or timing shift of activity that would otherwise occur elsewhere. . This is relevant not only to residential development, but also to the proposed village centre, visitor accommodation, resort and commercial components, which may compete with existing or planned developments within the wider Queenstown Lakes District.

The assessment also does not establish a counterfactual against which the proposal's economic benefits can be evaluated. Without considering the level of development and associated economic activity that would be expected in the absence of the proposal, it is not possible to determine the extent to which the estimated economic impacts are genuinely additional. Establishing an appropriate counterfactual is fundamental to assessing net economic benefits and provides the basis for evaluating displacement, substitution and wider market effects.

Similarly, while a full benefit-cost analysis is not generally expected at the referral stage, the EIA provides limited consideration of the potential opportunity costs associated with the proposal. Given the scale of the development and the range of alternative uses of land, infrastructure capacity and market demand within the district, a more complete assessment of the extent to which the identified benefits are additional, rather than representing a redistribution of activity from other locations or developments, would assist in understanding the proposal's overall economic contribution.

In particular, it does not examine the economic implications of allocating land, infrastructure capacity, labour and capital resources to the proposed development in preference to alternative uses. The masterplan identifies that parts of the site comprise highly productive land (LUC Class 3), yet there is no assessment of the potential economic implications associated with the loss of productive rural land or the trade-offs between the proposed development and existing or alternative land uses.



The assessment also does not consider the potential cumulative effects of introducing large-scale urban development into the Gibbston Valley, an established and nationally recognised viticulture area that contributes to the Queenstown Lakes District's primary production sector, tourism offering and regional identity. Beyond the direct loss of productive rural land, urban development may influence land market expectations and increase speculative pressure on surrounding rural properties, making productive viticulture less economically viable over time and creating pressure for further urban encroachment. These broader land use and market effects represent a potential opportunity cost that has not been considered in the economic assessment.

Consequently, while the assessment demonstrates the scale of economic activity associated with the proposal, it provides only limited assessment of the corresponding economic trade-offs and does not establish the proposal's net economic benefits. Understanding both the economic benefits and the associated economic costs is important when considering whether the proposal delivers significant regional or national benefits under section 22(2)(a)(iv) of the FTAA.

2.3 Victoria Flats Landfill and Reverse Sensitivity

One of the five parcels of the Waitiri development, Kūrae Waitiri, is located in close proximity to the Victoria Flats Landfill, an existing waste management facility jointly owned by the Queenstown Lakes District Council and Central Otago District Council. The landfill is a regionally significant piece of infrastructure that provides an essential waste disposal service for both districts and accepts a range of waste streams, including household collection waste, transfer station waste, commercial waste, and special and hazardous waste – I refer to the separate report forming part of QLDC's s17 comment that gives more detail on the Victoria Flats Landfill's role and importance.

The referral application and accompanying EIA provide no consideration of the potential implications of establishing a substantial residential community in close proximity to an active landfill. Operational activities associated with landfills, including waste handling, heavy vehicle movements, machinery operation, and the management of commercial and hazardous wastes, have the potential to generate effects such as noise, odour, dust and increased traffic. However, the application does not appear to assess whether these activities could give rise to reverse sensitivity effects associated with the proposed residential development.

Reverse sensitivity is an important consideration where new sensitive land uses, such as residential development, are introduced adjacent to existing infrastructure or operational activities. If not appropriately managed, there is potential for future residential development to create pressure to constrain the ongoing operation, future expansion or operational flexibility of the landfill, potentially resulting in wider economic and community costs.

While the assessment of reverse sensitivity is primarily a planning matter, it also has potentially significant economic implications that have not been considered in the referral application. The Victoria Flats Landfill is an important piece of regional infrastructure and any constraints on its ongoing operation, future expansion or operational flexibility could result in substantial economic costs. These



may include the need to identify, acquire, consent and develop an alternative landfill site, increased waste transport distances and disposal costs, additional capital investment, and associated increases in greenhouse gas emissions. Given the strategic importance of the landfill to both the Queenstown Lakes and Central Otago districts, consideration of these potential economic implications would assist in understanding the broader costs and trade-offs associated with the proposal, particularly when assessing whether the project delivers significant regional or national benefits under the FTAA.

2.4 Cost of Relocation

To illustrate the potential scale of the economic implications discussed above, ME has undertaken an indicative assessment of the disbenefits that could arise if operational constraints, reverse sensitivity effects, or other factors were to require waste currently processed at the Victoria Flats Landfill to be diverted to an alternative, more distant disposal facility. For the purposes of this illustrative assessment, a hypothetical alternative site has been adopted. The results should be treated as an order-of-magnitude estimate only, given the assumptions required in the absence of confirmed information regarding waste origin patterns, vehicle specifications, alternative site requirements, and site-specific development costs.

The assessment quantifies three components of potential disbenefit:

- a) Incremental waste transport costs associated with transporting waste currently received from the Queenstown Lakes and Central Otago districts (approximately 920 to 960 tonnes per week) an additional 125 km to 186 km one-way, depending on origin. These costs are valued using a haulage rate derived from the Ministry of Transport's Domestic Transport Costs and Charges study (2023)¹, escalated to current dollars using the PPI for Road Transport inputs;
- b) Indicative landfill development and capital costs associated with establishing an alternative disposal facility, based on the cost categories identified in the Ministry for the Environment's Landfill Full Cost Accounting Guide for New Zealand (2004)². These costs represent only a partial estimate, as site-specific engineering assessments would be required to quantify several components, including bulk earthworks and leachate, stormwater and landfill gas infrastructure; and
- c) Additional carbon costs arising from the incremental vehicle-kilometres travelled, estimated using Ministry for the Environment default emission factors and a carbon price consistent with current NZU market values.

On this basis, the indicative present value of the additional transport disbenefit alone is estimated at approximately \$106 million over a 41-year assessment period, reflecting Council's expectation that Victoria Flats Landfill would otherwise continue operating until 2067. A further partial estimate of

¹ [DTCC-Main-Report-June-2023.pdf](#)

² [Landfill-Full-Cost-Accounting-Guide.pdf](#)



landfill development costs of approximately \$31 million has been identified, noting that this excludes several cost categories requiring site-specific engineering inputs. The indicative carbon cost is estimated at less than \$1 million over the same period. Together, these components indicate a total potential disbenefit in the order of \$138 million.

These figures are illustrative rather than definitive and are not intended to represent an assessment of any specific alternative landfill location or a substitute for a full engineering and economic evaluation. Rather, they demonstrate that the potential economic costs associated with constraining the continued operation of, or relocating, the Victoria Flats Landfill could be material. The absence of any consideration of these potential costs represents an important limitation in the economic assessment supporting the referral application.

3. Conclusion

The Waitiri Development has the potential to generate significant economic activity through the delivery of approximately 1,115 residential lots and associated community, commercial and visitor facilities. The proposal therefore has the potential to contribute to housing supply and regional economic activity, which are relevant considerations under section 22 of the FTAA.

However, the economic assessment accompanying the referral application provides only limited evidence to demonstrate the extent to which these outcomes represent net additional economic benefits. In particular, the assessment does not adequately consider the current housing capacity and sufficiency picture, the relationship between the proposed housing mix and identified housing needs, or the implications of delivering the development across five geographically separate precincts. While the assessment estimates the gross economic impacts of the proposal, it provides limited consideration of displacement, cumulative development effects, an appropriate counterfactual, and the opportunity costs associated with the proposed development. The assessment also provides no consideration of the potential reverse sensitivity effects arising from the proximity of the Kūrae Waitiri precinct to the Victoria Flats Landfill, including the potential economic implications of constraining the long-term operation of this regionally significant infrastructure asset.

Overall, while the referral application demonstrates that the proposal is capable of generating substantial economic activity, the extent to which it delivers significant net regional or national economic benefits, after considering the associated economic costs, trade-offs and potential infrastructure implications, is not fully established. These matters are relevant to the Minister's consideration of the referral application under sections 21 and 22 of the FTAA.

Technical Memo

To:	QLDC Resource Consent Team
From:	Robert Galvin (Programme Manager Growth Areas, Property & Infrastructure)
Date:	Thursday, 16 July 2026
Subject:	Fast-track Approvals Act 2024 Oaks Living Limited – Waitiri Fast Track Referral Application (FTRA2603) Landfill and Environment Impacts Technical Commentary – s17 comment

1. Executive Summary

- 1.1. This memorandum provides Landfill and Reverse Sensitivity input to inform Queenstown Lakes District Council's (**QLDC or Council**) comments on the Waitiri project Fast-track Referral Application (**Project**), as invited under section 17 of the Fast-track Approvals Act 2024 (**FTAA**).
- 1.2. The Project contains five development areas. The Kūrae Waitiri development area is in proximity to the Victoria Flats Landfill, a regionally important waste disposal facility serving both the Queenstown Lakes District and Central Otago District. While the application acknowledges the presence of the landfill, it does not adequately address the potential future reverse sensitivity effects associated with introducing residential and visitor accommodation activities in proximity to a long-established strategic infrastructure asset.
- 1.3. The Victoria Flats Landfill performs a critical role in delivering waste disposal services across the region and is forecast to provide disposal capacity until at least 2067. Any constraint on its operation, future development, consenting pathway, or operational flexibility has the potential to result in significant environmental, economic, and community consequences.
- 1.4. The application does not adequately demonstrate how potential (future) reverse sensitivity effects will be managed over the long term or how the ongoing operation and future development of the landfill will be protected from constraint. Significant consideration should therefore be given to protecting the operational integrity, future capacity, and strategic function of the Victoria Flats Landfill when considering whether the Project should be referred into the FTAA approvals regime.

2. Qualifications and Experience

- 2.1. **Robert Galvin** is the Programme Manager (Growth Areas) in the Strategy and Infrastructure Planning Team within the Property & Infrastructure Department at QLDC. His role involves coordinating growth-related planning processes and integrating multidisciplinary inputs across Council's strategic and infrastructure planning frameworks. He has extensive experience in infrastructure programme and project delivery, asset management, procurement, and facilities management, and holds an MBA and a Postgraduate Certificate in Business. He is also a Graduate of the City & Guilds Institute (GCGI) and a Chartered Member of Engineering New Zealand (CMEngNZ).
- 2.2. **Robert** has been assisted in preparing this report by the following:

- **Gavin Flynn** is a Project Manager (Operations and Compliance) in the Property & Infrastructure Department at QLDC. He has 25 years' experience across local government functions including open space management, spatial planning, infrastructure strategy, waste minimisation, sustainability, and environmental compliance. He holds a Bachelor of Parks, Recreation and Tourism Management, is a Better Business Case Facilitator, and a certified Project Management Professional (PMP). His responsibilities include managing consent processes for Council infrastructure projects and providing strategic and operational oversight for infrastructure and compliance initiatives.
- 2.3. While acknowledging this is a referral application made under the Fast-track Approvals Act 2024 (FTAA), the technical authors confirm that they have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. The technical commentary 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.

3. Introduction

- 3.1. This memorandum provides Landfill and Reverse Sensitivity advice to inform Council's comments on the Waitiri Project Fast Track Referral Application under section 17 of the Fast-track Approvals Act 2024 (FTAA).
- 3.2. The assessment focuses on potential (future) reverse sensitivity effects arising from the proposed establishment of residential and visitor accommodation activities in proximity to an existing operational landfill, and whether sufficient information has been provided to demonstrate that the landfill's operational flexibility, future capacity, and consenting pathway will not be adversely affected.
- 3.3. The findings are based on information submitted as part of the Referral Application and the known operational and strategic significance of the Victoria Flats Landfill to both the Queenstown Lakes District and Central Otago District.

4. Victoria Flats Landfill and Reverse Sensitivity

- 4.1. The proposed Kūrae Waitiri development site is near the Victoria Flats Landfill, a regionally important waste disposal facility serving both the Queenstown Lakes District and Central Otago District. The landfill receives approximately 60,000 tonnes of waste per annum from municipal and commercial sources and is forecast to have disposal capacity until at least 2067.
- 4.2. The Victoria Flats Landfill is a strategic infrastructure asset that plays a critical role in providing cost-effective waste disposal services across the region. Any constraint on its operation, future development, or consenting pathway has the potential to result in significant community, environmental, and economic consequences, including increased waste haulage and disposal costs and increased transport-related carbon emissions associated with the use of alternative disposal facilities.
- 4.3. The proposed Kūrae Waitiri development includes residential and visitor accommodation activities near the landfill. Development of this nature introduces the potential for significant reverse sensitivity effects through the establishment of highly sensitive activities adjacent to a long-established infrastructure asset that requires ongoing operational flexibility to function effectively.
- 4.4. The landfill currently operates within its consented management and operational controls. Notwithstanding this, the introduction of new sensitive receivers has the potential to increase the risk of future reverse sensitivity effects arising from a lawfully established activity.

- 4.5. The Victoria Flats Landfill has operated for many years within an environment characterised by a relatively low-density pattern of development and a limited number of sensitive activities. The introduction of substantial residential and visitor accommodation development into the surrounding area would represent a significant change to the existing land use context and has the potential to have future reverse sensitivity issues associated with the ongoing operation and future development of the landfill.
- 4.6. Although the application acknowledges the presence of the landfill, it does not adequately demonstrate how potential reverse sensitivity effects will be managed over the long term or how potential land use conflicts will be avoided.
- 4.7. Consideration should be given to:
- i) The ability for the Victoria Flats Landfill to continue operating without additional constraints arising from (new) neighbouring residential and visitor accommodation activities.
 - ii) Whether future residents and visitors may be exposed to potential landfill-related effects, including odour, noise, dust, traffic movements, and visual effects, and subsequently seek restrictions on existing lawful activities.
 - iii) The strategic importance of protecting regionally important infrastructure from future reverse sensitivity effects that could compromise its function, future capacity, operational flexibility, or economic viability.
 - iv) The site's elevated position relative to the landfill and its exposure to prevailing wind conditions, which may increase both the perception and frequency of odour effects experienced by future residents.
 - v) Potential effects on future landfill consent applications, operational changes, capacity enhancement works, or expansion requirements necessary to meet the Central Otago and Queenstown Lakes long term waste disposal needs.
- 4.8. No-complaints covenants and similar legal mechanisms may assist in informing future owners and occupiers of the presence of the landfill. However, these mechanisms are unlikely to fully mitigate potential reverse sensitivity risks because:
- i) They do not prevent complaints from being made by residents or visitors.
 - ii) They do not remove future pressure for additional operational restrictions.
 - iii) They provide limited protection where off-site odour effects are alleged.
 - iv) They do not address the underlying land use conflict created by locating highly sensitive activities near strategic waste management infrastructure.
 - v) In this context, avoidance represents the most effective means of managing future reverse sensitivity risk.
- 4.9. Waste disposal facilities are identified as infrastructure under the National Policy Statement for Infrastructure 2025 (NPSI). A key objective of the NPSI is to enable infrastructure to support the development and change of urban and rural environments to meet the diverse and changing needs of present and future generations. Protecting the Victoria Flats Landfill from potential reverse sensitivity effects is consistent with this objective.
- 4.10. Policy 10 of the NPSI seeks to manage the interface between infrastructure and other activities by maintaining appropriate buffers and applying other methods to protect existing and planned infrastructure from the adverse effects of sensitive or incompatible activities, including reverse sensitivity effects and risks to health and safety. The application does not address this issue and from what has been provided, the proposed development area at Kūrae Waitiri appears inconsistent with the intent of this policy framework.

- 4.11. Securing land, obtaining approvals, and constructing a replacement landfill is a complex, lengthy, and costly process. Suitable sites are increasingly difficult to identify, and consenting processes are becoming progressively more challenging due to environmental, cultural, and community considerations, including reverse sensitivity effects associated with nearby sensitive land uses.
- 4.12. These challenges are evident at both regional and national levels. Recent experiences with the proposed Smooth Hill Landfill in Dunedin, the Auckland Regional Landfill, and the extension of Redvale Landfill highlight the increasing difficulty of securing new disposal capacity and managing reverse sensitivity effects where residential and other sensitive activities are established near strategically important waste management infrastructure.
- 4.13. Landfills are long-life strategic infrastructure assets that are planned, consented, financed, and developed over timeframes that commonly exceed 50 years. The substantial investment required to establish and operate this infrastructure, and the essential public service it provides, can only be realised where long term operational certainty and protection from reverse sensitivity effects are maintained.
- 4.14. Should potential reverse sensitivity effects constrain the ongoing operation, future development, or consenting of this existing regionally important infrastructure asset there is potential for significant adverse economic and environmental consequences.
- 4.15. Any reduction in the operational flexibility or future viability of the Victoria Flats Landfill may result in increased waste disposal costs for local government, commercial operators, and the wider community, together with additional transport costs and associated greenhouse gas emissions if waste is required to be transported greater distances to alternative facilities.
- 4.16. Potential consequences of constraining the landfill extend beyond site-specific effects and may include increased waste management costs, additional transportation requirements, increased greenhouse gas emissions, and challenges in securing alternative disposal capacity for the region.
- 4.17. There is a risk that, should the Kūrae Waitiri proposal proceed and substantial residential and visitor accommodation development occur on the site, the ongoing operation, future capacity, consenting pathway, and operational flexibility of the Victoria Flats Landfill could be materially constrained.
- 4.18. Significant weight should therefore be given to protecting the operational integrity, future capacity, operational flexibility, and strategic function of the Victoria Flats Landfill when assessing the proposed development.

5. Conclusion

- 5.1. ***Victoria Flats Landfill is regionally important infrastructure*** that provides an essential waste management service to both the Queenstown Lakes District and Central Otago District. The landfill has a long operational life, significant remaining capacity, and an important strategic role in supporting the region's future growth and development.
- 5.2. The application does not adequately demonstrate that the ongoing operation, future development, consenting pathway, and operational flexibility of the landfill can be protected from potential reverse sensitivity effects arising from the proposed development. In particular, the assessment does not adequately address future land use conflict associated with introducing substantial residential and visitor accommodation activities in proximity to the landfill.
- 5.3. There is a material risk that future complaints and land use conflicts could constrain the landfill's operational flexibility, future capacity enhancement, and consenting

pathway. Such constraints could result in increased waste management costs, additional transportation requirements, increased greenhouse gas emissions, and challenges in securing alternative disposal capacity for the region.

- 5.4. Given the strategic importance of the Victoria Flats Landfill, significant weight should be given to protecting the landfill from potential reverse sensitivity effects and ensuring that future residential and visitor accommodation development does not compromise its ongoing operation, future development, or long-term strategic role.
- 5.5. Further assessment is required to demonstrate that the Project can proceed without creating unacceptable reverse sensitivity effects or compromising the operation, future development, and strategic function of the Victoria Flats Landfill.

To: QLDC Resource Consent Team

Date: Thursday, July 16, 2026

From: Matthew Jones, Isthmus Group Ltd (IGL)

Job No: 5237

Subject: **Fast-track Approvals Act 2024**

Oaks Living Ltd, Waitiri Fast Track Referral Application FTAA2603), Queenstown Lakes District.

Landscape - section 17 comment

1 EXECUTIVE SUMMARY

1.1 This memorandum provides an independent peer review of the landscape assessment prepared by Patch Ltd for the proposed Waitiri Development under the Fast-track Approvals Act 2024.

1.2 Key findings of this review are:

- The proposal comprises a large-scale development across five geographically separate sites, each with distinct landscape characteristics, landscape values and planning contexts which warrant both individual and overall assessment;
- The sites are located within or adjacent to Outstanding Natural Landscapes (ONLs), the Kawarau River Outstanding Natural Feature (ONF), Priority Area landscapes, a Rural Amenity landscape and Wāhi Tūpuna as identified in the Proposed District Plan;
- The Patch landscape assessment does not adequately identify or evaluate the specific landscape attributes and landscape values associated with each development area, limiting the ability to provide justification for effects assessment conclusions and the protection of landscape values;
- Insufficient information is provided in relation to landscape sensitivity and the landscape's capacity to absorb the scale and intensity of development proposed. The ability for a landscape to absorb development is a key assessment tool used in the Proposed District Plan;
- A greater level of detail is required for the assessment of visual effects in relation to both public and private viewpoints, including longer-distance views across the Gibbston Valley and Crown Terrace landscapes;
- The proposed landscape framework and mitigation planting are likely to provide only partial mitigation in some locations, particularly where development extends to site boundaries and has limited transition to the surrounding rural landscape;

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- The assessment does not sufficiently address cumulative effects, either between the five development areas or in combination with other existing and anticipated developments within the wider Gibbston Valley and Crown Terrace environment.
- 1.3 Overall, the landscape assessment does not provide sufficient site-specific analysis to adequately understand the potential landscape and visual effects of the proposal within the Gibbston Valley and Crown Terrace landscapes, and across the five individual development areas. While the assessment identifies relevant landscape considerations and proposes landscape mitigation, there are gaps in the assessment and further analysis is required to identify the landscape values of each site, evaluate the landscape sensitivity and landscape capacity to absorb development, and provide more detailed assessment of landscape character, visual and cumulative effects, and the protection of landscape values.

2 INTRODUCTION

- 2.1 This memorandum has been prepared to provide an expert peer review of landscape assessment matters following review of specific documents in the referral application for the Oaks Living Ltd – Waitiri Development proposal across five sites within the Gibbston Valley and upon the Crown Terrace, within the Queenstown Lakes District (“Project”). I have been engaged by the Queenstown Lakes District Council (‘QLDC’) to prepare this peer review.
- 2.2 Specific documents I have reviewed in the preparation of this memorandum include:
- *Appendix A – Masterplan Document, Waitiri Development – Fast-track Approvals Act Referral Application ‘Landscape Strategy’*, Oaks Living Ltd (dated 21 May 2026),
 - *Appendix B – Project Area Maps*, Campbell Brown Planning (dated 22 May 2026),
 - *Appendix D – Housing Typologies, DDA Consultants Ltd* (undated – but included as part of referral application), and
 - *Appendix M – Preliminary Landscape Assessment Report*¹, Waitiri Development Oaks Living Ltd, Patch Ltd, (dated 21 May 2026).
- 2.3 I make a number of observations as to where information is lacking in my conclusion (refer Section 6).

3 QUALIFICATIONS AND EXPERIENCE

- 3.1 This memorandum has been prepared by Matthew Jones, Principal landscape architect at Isthmus Group Ltd. I have over 20 years’ experience as a landscape architect on a range

¹ Referred to as the *Patch landscape assessment*, herein.

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of landscape design, landscape planning and management projects. I have a Bachelor of Landscape Architecture from Unitec and am a registered landscape architect with Tuia Pito Ora, New Zealand Institute of Landscape Architects (NZILA).

- 3.2 My experience includes design and assessments to assist applications and reviews for resource consent, structure plans and plan changes, and to assist with district plan provisions and policy review. My experience includes projects under both the Resource Management Act 1991 and the Fast-track Approvals Act 2024 and includes design, masterplanning, and landscape and visual assessments for (i) subdivision development and masterplans in both rural and urban environments across New Zealand, (ii) plan change applications, and policy and District Plan reviews, (iii) transport infrastructure projects, (iv) energy generation and transmission infrastructure, and (v) urban and town centre spatial plans, and masterplanning.
- 3.3 I have experience working in the Queenstown Lakes District for the Queenstown Lakes District Council ('QLDC') with specific experience on projects related to the Proposed District Plan Review dating back to 2020 (and includes ongoing appeals) and also in the review of Resource Consent applications. This work included reviewing projects and appeals for sites within Outstanding Natural Landscapes ('ONL'), within or proximate to Outstanding Natural Features ('ONF') and also Wāhi Tūpuna. Of particular relevance to this project is my recent work and experience working for QLDC on projects in the wider Gibbston Valley area including the Victoria Flats and sites in the vicinity of those within the referral application. These include sites where assessment and evaluation has been required in relation to the landscape values of ONL, the Kawarau River ONF and Wāhi Tūpuna, and the matters identified within the relevant Priority Area Landscape Schedules. As such, I am familiar with the subject area.
- 3.4 Although this Project is not being considered before the Environment Court, I confirm I have read the Code of Conduct for expert witnesses as contained in section 9 of the Environment Court Practice Note 2023. I agree to comply with that Code. I am satisfied that the matters which I have addressed in this memorandum are within my area of expertise, except where I state that I am relying on information provided by another person or expert. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

4 PROJECT PROPOSAL

- 4.1 The project proposal comprises the following (high level summary):
- 4.1.1 A large-scale development across five separate sites in the Gibbston Valley, located between the Waitiri Peninsula (east) and the Crown Terrace (West) (refer **Figure A** below). As illustrated and outlined within Appendix A to the referral application, the five areas are:
- Kūrae Waitiri,

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- Taiheke Riverside,
- Karapuken Drystone,
- Mānia Glenlee & Glenroy, and
- Ara Tihi Eastburn.

4.1.2 The development areas are located across the broader area upon a mix of elevated terraces, the Gibbston Valley floor terrace or the slopes of the rising surrounding topography.

4.1.3 The Project seeks to include a mix of residential housing, visitor accommodation, community facilities, open spaces and infrastructure. Community features also include a resort precinct, a village precinct, golf courses, a lodge, a school site, a nursery and solar farm. Refer **Figure B** below for a breakdown of the activities and development metrics – the development areas propose to include different areas, with for example *Ara Tihi Eastburn* only including housing.

4.1.4 A landscape framework (seeking to screen and provide visual integration for the proposal into the surrounding context) is proposed across each development area / site which includes open space (except *Ara Tihi Eastburn*), landscape buffers and mitigation planting, and native restoration and revegetation.

4.1.5 The development areas are connected by State Highway 6 (through the Gibbston Valley), the Crown Range Road and a series of smaller existing and proposed connector roads through the respective sites. There are also pedestrian and cycling networks proposed (within each site aside from *Ara Tihi Eastburn*).



Figure A – Project Areas (source Patch Ltd Sheet #4 (PA25851) included within the FTAA application) – north up, not to scale.

	Ara Tihi Eastburn	Mānia Glenlee & Glenroy	Taiheke Riverside	Karapuke Drystone	Kūrae Waitiri	Totals
Open Space	-	168.39 ha	6.36 ha	23.95 ha	98.76 ha	297.46 ha
Rural Visitor	-	2.52 ha	-	-	2.89 ha	5.41 ha
Resort Precinct	-	3.64 ha	-	-	-	3.64 ha
Lodge	-	12.50 ha	-	-	-	12.50 ha
Club House/Com. Hub	-	2.06 ha	-	-	0.57 ha	2.63 ha
Village Precinct	-	-	-	5.51 ha	-	5.51 ha
School	-	-	-	2.10 ha	-	2.10 ha
Cultural Dev. Node	-	-	6.15 ha	-	-	6.15 ha
Nursery	-	-	-	-	4.47 ha	4.47 ha
Solar Farm	-	-	-	-	3.73 ha	3.73 ha
High Density Lots ~250m ²	-	-	74	93	-	167
Medium Density Lots ~500m ²	-	-	28	62	119	209
Low Density Lots ~700m ²	-	-	59	192	137	388
Large Lot Residential ~1,000m ² < 4,000m ²	-	-	31	77	97	205
Rural Living ~4,000m ² < 2 ha	-	64	-	-	33	97
Rural > 2 ha	22	27	-	-	-	49
Total Lots:	22	91	192	424	386	1,115

Figure B – Proposed Development Breakdown (source Patch Ltd Sheet #27 (PA25851) included within the FTAA application).

5 REVIEW OF FAST TRACK REFERRAL LANDSCAPE ASSESSMENT

- 5.1 The referral landscape assessment by Patch Landscape Ltd (“**Patch Landscape assessment**”) provides an outline of the Project and matters relevant to the assessment of potential landscape character and visual amenity effects. This section of my memorandum provides high level commentary and review of key matters identified, the methodology and level of information provided and outlines queries related to the Project.
- 5.2 The *Patch Landscape assessment* provides a succinct **introduction** and **executive summary** overview related to the Project (including an outline of overall conclusions reached).
- 5.3 The **methodology** section outlines that the assessment has been undertaken in accordance with *Te Tangi a te Manu* (the New Zealand landscape assessment guidelines), including by using the 7-point effects scale.² I consider this statement to be important, given it is a clear indication that Patch Landscape considers the assessment has appropriately followed the guidelines, and my peer review is therefore prepared in

² It is worth noting that the 7-point effects scale on page 151 of *Te Tangi a te Manu* should also be referenced, in relation to the level of potential effects identified.

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accordance with *Te Tangi a te Manu* expectations for a peer review. An outline of the author's **qualifications and experience** is also provided.

- 5.4 For a project of this scale and complexity, where the overall development and respective development areas extend across a broad area (approximately 13.5km west-east) and across a variety of landscapes, the **description of the landscape** section of the report is brief. Within Sections 5 and 7 of the *Patch Landscape assessment* a high level outline of the formation of the Gibbston Valley and the Crown Terrace area and also a breakdown of the physical, associative and perceptual values of the landscape, overall, is provided. This includes acknowledgement that the proposal is located within a receiving environment which includes areas identified as Outstanding Natural Landscapes (ONL), Outstanding Natural Features (ONF) and Rural Character landscapes and provides landscape values overall, but not in relation to the individual sites. The five respective development area sites are large in their own right and, as such, a comprehensive breakdown and analysis should be provided of each, to outline and understand their localised context and the associated landscape attributes and values. Notably, the *Patch Landscape assessment* does not outline the Kawareau River Wāhi Tūpuna³.
- 5.5 For clarity, the development sites are located within the following Proposed District Plan ('PDP') zones, and landscapes:
- 5.5.1 **Kūrae Waitiri:** Located within an ONL, partly within the *Kawareau River Wāhi Tūpuna*, partly within and immediately adjacent to the Kawareau River ONF and *Priority Area* (Schedule 21.22.9) (Extremely limited or no capacity for Rural living or Urban expansion). Part *Rural Zone*, part *Gibbston Character Zone*;
- 5.5.2 **Taiheke Riverside:** Located within an ONL, partly within the *Kawareau River Wāhi Tūpuna*, partly within and immediately adjacent to the Kawareau River ONF and *Priority Area* (Schedule 21.22.9) (Extremely limited or no capacity for Rural living or Urban expansion). *Gibbston Character Zone*;
- 5.5.3 **Karapuken Drystone:** Located within an ONL. *Gibbston Character Zone*. Site includes a number of protected trees (PDP reference 215);
- 5.5.4 **Mānia Glenlee Glenroy:** Located within an ONL. Part *Rural Zone*, part *Gibbston Character Zone*;
- 5.5.5 **Ara Tihi Eastburn:** Part *Wakatipu Basin Rural Amenity Zone* ('WBRAZ') and *Landscape Character Unit 20: Crown Terrace* ("highly sensitive to landscape change" with Very Low

³ Refer **Chapter 39 Wāhi Tūpuna** within the QLDC Proposed District Plan. The Kawareau River also has a *Priority Area* overlay (refer **Section 21.22.9**).

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capability to absorb additional development⁴), Part *Rural Zone* and *Eastern Whakatipu Basin Priority Area* (Schedule 21.22.16) (Very Limited landscape capacity for Rural Living).

- 5.6 The specificity of these matters listed above have not been identified within the *Patch Landscape assessment*. This, in combination with the lack of identification of the landscape values associated with each of the specific sites in the context of the ONLs, ONF, rural amenity zone and Wāhi Tūpuna, presents a gap in the assessment. A description and breakdown of the landscape would provide a clear outline of the attributes and values associated with each site in the context of the broader landscape. Many of the landscape values and attributes are provided within certain sections (Schedules) of the PDP. They can be considered and applied for each site as appropriate, whilst also understanding their relevant context and application. This in turn would assist with the later assessment of potential effects on landscape character and visual amenity and whether the identified values of the landscape are protected, however this has not been undertaken.
- 5.7 Paragraph 7.17 of the *Patch Landscape assessment* states that the Gibbston Character Zone is an 'exclusion zone'. This terminology is not used in the PDP however, an "Exception Zone" is a concept used in Chapter 3, Strategic Directions, of the PDP. However, the fact that the Gibbston Character Zone is specified in 3.1B.5.a as an Exception Zone does not mean that the site is not ONL. What it means is (and this is relevant to Development Areas *Kūrae Waitiri*, *Taiheke Riverside*, *Karapuken Drystone* and *Mānia Glenlee & Glenroy*):
- That the strategic objectives and strategic policies listed in 3.1B.6 do not apply to consideration or determination of any applications for any subdivision, use or development within any of the Exception Zones;
 - In each Exception Zone located within an ONL (as is the case for Gibbston Character Zone), any application for subdivision, use and development is provided for only to the extent anticipated by that Exception Zone, and on the basis that any additional subdivision, use and development not provided for by that Exception Zone protects the landscape values of the relevant Outstanding Natural Landscape.
- 5.8 The development proposed in the *Kūrae Waitiri*, *Taiheke Riverside* and *Karapuken Drystone* Development Areas is not anticipated by the Gibbston Character Zone. Therefore, despite being listed as an Exception Zone, the PDP is clear that the type of development proposed through the Referral Application still needs to protect the

⁴ Refer 20: *Crown Terrace* within **Section 24.8 Schedule Landscape Character Units** within the QLDC Proposed District Plan.

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landscape values of the ONLs, with the relevant values listed in the PDP (e.g. the Priority Areas such as 21.22.9 and 21.22.16).

- 5.9 Also, the sites are disconnected given the distances between them and not being accessed from the same roads (State Highways) – *Ari Tihi Eastburn* is accessed off Crown Range Road (upon the Crown Terrace), whereas the other four sites are accessed from State Highway 6 ('SH6').
- 5.10 Similarly, the **description of the proposal** section is brief given the relative complexity of the design and spatial arrangements of the respective development areas. Notwithstanding however, when reading the *Patch Landscape assessment* concurrently with the Waitiri Development Masterplan document (Appendix A to the application), a high level outline of the respective components of the design for each development area is provided. This includes the spatial arrangement and the proposed development and landscape frameworks.
- 5.11 Paragraph 7.4 of the *Patch Landscape assessment* states that "*the proposal is anticipated to be implemented progressively across **multiple stages**, reflecting infrastructure provision, landform constraints, and the structure of the masterplanned framework.*" (emphasis added).
- 5.12 The **landscape and visual effects assessment** section of the *Patch Landscape assessment* is broken down into separate sections related to **Visual Effects** and **Landscape Effects**. The challenge with a project of this nature is that each development area is a sufficiently scaled project in its own right, with varied landscape attributes and landscape values associated with each respective site. As such, although a 'single development' proposal, each of the five development areas should be analysed, evaluated and assessed individually, but also collectively across the wider landscape. This is acknowledged and outlined within paragraph 7.3 of the *Patch Landscape assessment*, but is only provided at a high level within the *Visual Effects* assessment. It is not provided as part of the subsequent *Landscape Effects* assessment.
- 5.13 Notably also, an outline of landscape sensitivity areas and a breakdown of the landscape's capacity to absorb development (including in relation to each site) has not been provided within the assessment and therefore there is limited justification and spatial constraints identified for the level of development proposed. The ability for a landscape to absorb development is a key assessment tool used in the Proposed District Plan.

Visual Effects

- 5.14 This section of the *Patch Landscape assessment* provides an overall evaluation and also an assessment of each development area in relation to potential visual effects. The assessment for each development area is brief and high level, but does provide an outline of potential effects and mitigating factors.

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- 5.15 Regarding the *Kūrae Waitiri* development area, I agree there will be visibility of the proposal from the east, but it will also be visible from the west in longer views along State Highway 6 from around the Nevis Bluff. There will also be views from the publicly accessible walking trail in the ranges around the Victoria Flats area. Further, given the location of lots on that site's western boundary (within its northern reaches), there will likely be views to the west into the Victoria Flats area and also to the QLDC landfill and quarry activity. This could result in reverse sensitivity effects.
- 5.16 The *Taiheke Riverside* and *Karapuke Drystone* development areas on the Gibbston Valley floor and rising slopes to the south will be visible from State Highway 6 and to a lesser extent private properties in the area. The location of the greater area of proposed development in the southern part of *Karapuke Drystone* upon the terrace will have less visibility.
- 5.17 The larger *Mānia Glenlee & Glenroy* development area is located on the rising topography and elevated terrace to the south, above the Gibbston Valley Winery and State Highway 6. Development within this area will largely not be visible from SH6 (due to its location upon the terrace), but will be visible in long views from the Crown Range Road to the north.
- 5.18 The *Ara Tihi Eastburn* development area is located on the Crown Terrace and will be visible from the Crown Range Road and also from nearby private property.
- 5.19 In my opinion, for the *Kūrae Waitiri*, *Taiheke Riverside* and *Karapuke Drystone* development areas the proposed mitigation planting would not provide an appropriate level of screening or integrate the development sought into the localised context. This is particularly the case for these sites on the Gibbston Valley floor terrace and rising slopes, such as the edges of *Kūrae Waitiri*, and the eastern and western edges of *Taiheke Riverside* and *Karapuke Drystone*. The arrangement within these development areas proposes development up to and adjacent to the respective site boundaries. A transition in lot and building density and an increase in the landscape framework response is not provided to the site boundaries and this is inappropriate in the context of these respective sites. They will be viewed as not being in character with the surrounding environment.
- 5.20 Greater analysis and specificity to the assessment of the potential visual effects of the proposed development areas is required. Also, within the *Patch Landscape assessment* many references are provided to the "existing landscape patterns" and the "evolving pattern of land use" within the Gibbston Valley. This is overstated.

Landscape Effects

- 5.21 The landscape effects section of the *Patch Landscape assessment* provides a broad and overall assessment of the five development areas collectively. As outlined above, a site specific assessment of each development area is required with reference to the protection of the identified landscape values in relation to their specific location within the wider Gibbston Valley and Crown Terrace, and also cumulatively.

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- 5.22 Given the landscape values of the respective sites, and their surrounds including the Gibbston Valley, Crown Terrace and the ONL and ONF have not been identified, in my opinion the assessment is incomplete and the effects on landscape character are difficult to quantify for each site and for the Project overall. Each site is unique and needs to be assessed and evaluated individually with respect to the protection of landscape values.
- 5.23 Although I agree that a landscape framework is provided for each development area which, in my opinion, will only provide partial mitigation, an outline of the **landscape's capacity** to absorb the development sought has not been provided. There is also not an outline of the **appropriateness** of the development in relation to the change from existing lower density development to arrangements and layouts which, in my opinion, have **urban characteristics**.⁵ Existing development is low density across these Gibbston Valley and Crown Terrace landscapes and key objectives of the PDP are to avoid urban development outside of the urban growth boundary (and protect the landscape values of ONLs and ONFs). This is a matter to be addressed particularly for development areas *Kūrae Waitiri, Taiheke Riverside* and *Karapuke Drystone*, and to a lesser extent *Mānia Glenlee & Glenroy*.

Cumulative Effects

- 5.24 An assessment of the project in relation to cumulative effects is not provided in great detail. This includes in relation to the proposed development within the respective development areas in their localised context, across the project collectively as a whole with the five identified development sites, and also in the context of the Gibbston Resort Zone, and the Gibbston Character Zone (including Sub Zone). Paragraph 7.3 of the *Patch Landscape assessment* states that “*cumulative influence*” is recognised as part of the assessment, but no further specific commentary has been provided.
- 5.25 The **conclusion** outlines there will be a range of effects related to the proposal with the level of detail provided consistent with that throughout the balance of the *Patch Landscape assessment*.

6 SUMMARY AND RECOMMENDATIONS

- 6.1 Having undertaken the review of the referral landscape assessment, the following comments are outlined:
- Identification of the landscape attributes and landscape values of each of the respective sites and development areas is required. This is critical to the assessment and should include a breakdown of those associated with the Outstanding Natural Landscapes, Outstanding Natural Feature (including the Priority Area Schedules), the

⁵ Acknowledging this is not relevant to all sites and development areas.

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Wāhi Tūpuna, Rural Character landscapes, the Crown Terrace Landscape Character Unit and another matters relevant to the respective sites and the wider landscape;

- Provide assessment of each of the respective development areas in relation to the landscape values identified (per the bullet above);
- For each site provide landscape sensitivity mapping and an outline of the landscape's capacity to absorb development, in the context of the wider Gibbston Valley and Crown Terrace;
- Provide greater detail of the potential effects on landscape character (related to the landscape values identified above) and the context of each site, and especially in relation to whether or not the Project results in urban development across any of the development sites;
- Provide greater detailed visual assessment of the respective development areas and also for the Project, overall. This should include analysis and assessment from a range of varied viewpoint locations within both publicly accessible locations and from private property. Acknowledging that purely screening proposed development will not avoid potential adverse effects.

Memorandum

To: Michael Wardill, Queenstown Lakes District Council (QLDC) **Date:** 16 July 2026
From: Anna Punt, Beca Limited **Our Ref:** 3020380-598822918-537
Copy: Onur Oktem, QLDC
Subject: Waitiri FTRA 2603 - Natural Hazards Review

1 Executive Summary

Beca Limited (Beca) has reviewed the GeoSolve Limited (GeoSolve) Preliminary Geotechnical Hazards Assessment report (Revision 1, dated 2 April 2026) for the proposed Waitiri development (FTRA2603). The review considers the technical aspects of the natural hazard risk assessment conducted to support a Fast-Track Resource Application (FTRA), and whether the assessment has been undertaken in accordance with the 2025 National Policy Statement for Natural Hazards (NPS-NH).

The GeoSolve report provides a preliminary description of hazards that may affect the development, including alluvial fan hazards, landsliding, rockfall, seismic shaking and liquefaction. However, the report does not provide a risk assessment in accordance with the NPS-NH. In particular, it does not assign likelihood and consequence for each identified hazard, distinguish between property and injury/fatality risk, or clearly explain how the mapped 'risk' categories were determined.

Some hazards are not sufficiently characterised to support the 'risk' ratings presented. In particular, alluvial fan hazards require clearer distinction between flooding and debris flood/debris flow processes.

Further work is required before the potential implications of the identified natural hazards on the proposed development can be understood. This should include; clearer hazard definition, additional site mapping and investigations where needed, an NPS-NH-compliant assessment of likelihood and consequence, transparent justification of assumptions, mapping of the spatial distribution of risk for each hazard, consideration of climate change over at least 100 years, and clear spatial extents of risk management or avoidance recommendations in line with NPS-NH.

While the GeoSolve report could be treated as a preliminary hazard screening assessment, the report does not provide sufficient information to assess the natural hazard risk to the proposed developments or demonstrate compliance with the NPS-NH.

2 Introduction and Scope

Beca Limited (Beca) has been engaged by Queenstown Lakes District Council (QLDC) to undertake a technical review of a natural hazards assessment supporting Oaks Living Limited's Fast Track Resource Application (FTRA2603) for five sites forming the Waitiri Development in the Crown Range and Gibbston Valley.

This memorandum summarises our findings following review of the GeoSolve Limited (GeoSolve) 2026 report 'Preliminary Geotechnical Hazards Assessment, Waitiri Development Crown Range & Gibbston Valley, Queenstown'.

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The purpose of the review was to:

- Assess the technical aspects of the GeoSolve report, with regards to the assessed natural hazard risk.
- Consider whether the risk assessment has been applied in a manner consistent with the risk matrix methodology outlined in the National Policy Statement for Natural Hazards (2025) (NPS-NH).
- Provide recommendations regarding additional required work to assess risk in line with the NPS-NH.

As part of the review the following documents have been considered:

- Preliminary Geotechnical Hazards Assessment – GeoSolve Ltd, 2 April 2026 (reference 260204)
- Waitiri Development Landscape Strategy, – Patch, 2 April 2026

The review is limited to the natural hazard assessment presented in GeoSolve (2026) and excludes review of other matters including stormwater and civil assessments. No independent analysis or site visit has been undertaken as part of this review. This review is based on local knowledge of natural hazards, understanding of the proposed development as documented in the GeoSolve report and Patch plans, and information contained in the GeoSolve report.

3 GeoSolve Report Approach

The GeoSolve report is based on a desktop assessment of geology, natural hazards (utilising the Otago Regional Council (ORC) Natural Hazards Database portal) and topography, and a site mapping exercise undertaken by an Engineering Geologist and a Senior Water Engineer. The report states that GeoSolve considered groundwater data from the New Zealand Geotechnical Database, although did not consider geotechnical investigation data, instead relying on geological maps, site mapping and local knowledge. The report states that no subsurface ground investigations have been undertaken at this stage of the development.

The report identifies the following natural hazards as having the ability to affect the proposed development areas:

- Alluvial fan hazards
- Landslides
- Rockfall
- Seismic shaking
- Liquefaction.

The GeoSolve report includes commentary on the identified natural hazards, with a high-level assessment of natural hazard risk provided. Beca's review of the GeoSolve assessment is provided below.

4 GeoSolve Report Review

The GeoSolve report presents a preliminary assessment of natural hazards for the proposed Waitiri development. In relation to natural hazard risk, our key comments are summarised as follows:

- The hazard characterisation presented does not fully represent the nature and extent of hazards and their potential impact on the proposed development.

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- The GeoSolve report does not provide a risk assessment aligned with the NPS-NH, as likelihood and consequence were not assessed to inform resulting 'risk' categories for each hazard, as noted in Section 3.7 of the report.
- Recommendations for further work are vague and, in the absence of further clarification, may not allow risks to be appropriately addressed at subsequent design stages.

These items are discussed in more detail below.

4.1 Hazard Characterisation

The alluvial fan commentary in the GeoSolve report focuses on stormwater/drainage and flooding hazards; however, it does not fully recognise the potential debris flow/debris flood hazards. Debris flow/debris flood hazards are mentioned in relation to one of the proposed development areas (Mānia – Glenlee Glenroy), however three other development areas (Ara Tihi – Eastburn, Taiheke – Riverside and Karapuken – Drystone) are shown on the ORC hazards mapping portal as partially sitting within areas of active debris-dominated or composite alluvial fans, which are identified as being susceptible to debris flow and floodwater flow. Given this, the alluvial fan hazards detailed in the GeoSolve report have not been sufficiently characterised, and so any assessment of the risk from these hazards would be incomplete at this stage.

High-level landslide hazards commentary is provided in the GeoSolve report, with focus on areas where development is proposed near to the crest of steep slopes or gullies. Preliminary suggested setbacks have been recommended, based on field mapping, inferred ground conditions and slope height. The report notes that further work, including ground investigations and modelling will be required to accurately determine the required setbacks. Commentary is also made on existing mapped hazards from the ORC hazard portal. However, further effort is required to identify landforms, slope angles or processes that may contribute to the risk of landslides in the wider area. As such, any assessment of the risk from landslide hazards would be incomplete and may not represent the full extent of landslide risk to the development.

Rockfall hazard characterisation is based on ORC hazard mapping and GeoSolve site observations. It is unclear whether complete mapping of the site was undertaken and no recommendations are made for further work to refine rockfall hazards. Suggestions are made regarding avoidance and mitigation of rockfall hazards (refer to the below comments regarding the suitability of the risk assessment) including bunds, rockfall fences/nets, bolting and scaling.

Seismic shaking commentary is based on mapped faults, with Fault Awareness Areas (FAAs) of 250m either side of fault traces applied, based on Ministry for the Environment guidelines. The FAAs are shown in Appendix A of the GeoSolve report, although no risk assessment of the seismic shaking hazard has been provided. Additionally, surface rupture has not been considered as a hazard despite the NW Cardrona Fault splays being mapped within the Mānia – Glenlee Glenroy development area.

Liquefaction is identified in the GeoSolve report based on the regional liquefaction susceptibility map, with all areas designated as 'liquefaction damage is unlikely'. The report notes that *"the regional groundwater table is expected to lie well below the development areas.... therefore the overall liquefaction risk is considered to be low."* It further notes that *"a perched water may be present in areas proximal to watercourses..."* and *"localised low-lying areas adjacent to water courses may be susceptible to liquefaction..."*, and states the risk is expected to be no greater than 'medium' although no assessment of the risk from liquefaction has been undertaken. It is our view

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that a liquefaction risk assessment should be undertaken in accordance with the NPS-NH given that the NPS-NH requires medium risk areas to be mitigated proportionate to the level of risk. To undertake this assessment will require a better level of understanding of perched water levels and their influence on liquefaction than currently communicated in the GeoSolve report.

4.2 Adherence to NPS-NH

The GeoSolve report does not provide a risk assessment of the identified natural hazards in accordance with the NPS-NH. Section 3.7 of the GeoSolve report notes that an assessment in line with the NPS-NH is “...expected to be required” “...as the project progresses”; however, the report assigns ‘preliminary geotechnical risk level’ definitions throughout the report and on the Appendix B maps which are intended to be in line with the NPS-NH risk descriptors (low, medium, high and very high risk). There is a risk that the terminology in the GeoSolve report could be interpreted as being consistent with the NPS-NH, when the required assessment has not been undertaken. The use of these terms in the GeoSolve report is not considered appropriate given the potential for misinterpretation.

Based on commentary within the report, our understanding of the GeoSolve approach to determining their assigned ‘preliminary geotechnical risk levels’ for the various hazards is as follows:

- **Alluvial fan / flooding hazards.** It is unclear how the risk maps presented in Appendix B identify areas subject to alluvial fan hazards, given that ORC alluvial fan mapping (Natural Hazards Database) does not align with the zones presented in Appendix B.
- **Landslide hazards.** The determination of ‘risk’ from landslide hazards in the GeoSolve report is based on the following:
 - ‘Very high risk’ areas are based on proximity to the crests of steep slopes.
 - ‘High risk’ areas have been assigned based on lower slope height where scarps were identified or in the case of the Resta Road slip area, where ORC mapping requires further assessment to determine if it is currently still active.
- **Rockfall hazards.** The determination of ‘risk’ from rockfall hazard is based on the following:
 - ‘Very high risk’ areas within bases of gullies below rock outcrops identified in ORC hazard mapping.
 - ‘High risk’ areas below rock outcrops or where an area is mapped by ORC as a rockfall awareness area but no outcrops were observed on site.
 - ‘Medium risk’ areas elevated above the gullies described above.
- **Seismic shaking.** No attempt has been made in the GeoSolve report to assign a ‘risk’ level to seismic shaking.
- **Liquefaction.** A generic ‘risk’ level of medium has been determined by GeoSolve for areas proximal to waterways.

None of the above approaches consider the likelihood or consequence of the respective hazards and therefore do not constitute a risk assessment. The risk assessment and risk zonation provided for these hazards are not consistent with the NPS-NH.

Other aspects of the GeoSolve report that are not aligned with the NPS-NH include:

- The ‘risk maps’ provided in Appendix B of the GeoSolve report show an amalgamation of information relating to different hazards. It is difficult to follow which hazards these zones relate to. Note; these maps do not show risk (as likelihood and consequence are not considered) and would more appropriately be referred to as hazard maps.

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- No distinction is made on whether the 'risk' levels described in the report and the maps provided in Appendix B relate to risk to property or injury/fatalities, both of which would be required under the NPS-NH.
- The extent of the 'risk' zone mapping presented in Appendix B is incomplete in that parts of the development areas have not been mapped. It appears that 'risk' zones are only shown for proposed residential lots, with the remaining development areas not mapped. This applies to the Mānia – Glenlee Glenroy, Karapuken – Drystone, Taiheke – Riverside and Kūrae – Waitiri development areas. It is of note that these unmapped areas are typically the areas least likely to be suited for development e.g., ravines, steep gullies etc. Given our understanding that the proposed layout of building lots could change through the substantive process, this leads to the risk that building lots could later be proposed outside of the current 'risk' mapping.
- The risk management measures suggested throughout the GeoSolve report are based on 'risk' descriptors (i.e. low, medium, high and very high risk) and there appears to be an intent for them to be somewhat in line with the proportionate management of risk outlined in the NPS-NH. However, these risk management measures do not clearly convey the requirements of the NPS-NH, that very high risk areas must be avoided. For example, the report states "*very high risk zones are best avoided*".
- It is not made clear in the report or the Appendix B 'risk' maps that development must be avoided in 'very high risk' areas. The Appendix B risk zone legend for 'very high' risk refers to "*will require no build zones / avoidance*," however, it appears that the development plans have not been updated to reflect this recommendation. Two examples of this are in the proposed Mānia – Glenlee Glenroy development area where there is a proposed lot located entirely within a 'very high risk' zone. There is also a lot mapped as predominantly 'very high risk' where the only remaining land is within steep narrow gullies mapped as 'high risk' (i.e., land that could be developed with appropriate risk mitigations), where due to the nature of the lot, appropriate risk mitigation to enable development may not be achievable. We note that any future updates to align the risk assessment with the NPS-NH will change the spatial extents of risk zones as presented in Appendix B.
- No mention is made of the potential impacts of climate change to at least 100 years into the future, as required under the NPS-NH.

4.3 GeoSolve Recommendations for Further Work

Recommendations for further work are made throughout the GeoSolve report, but the scope, timing and purpose of that work are not consistently defined. Several recommendations are also not repeated in the conclusions or recommendations section, which creates a risk that they will not be carried through into subsequent design, consent conditions or planning provisions.

5 Beca Recommendations for Further Work Required for NPS-NH Consistency

A robust assessment of natural hazard risk and risk management in line with NPS-NH would be expected to include the following as a minimum, which are currently absent from the GeoSolve report:

- Clear definition of the hazards being assessed, including for example:
 - Clarification of the hazard rather than the landform e.g. flooding or debris flow/debris flood risk on alluvial fans.

Memorandum

- Clearer definition of landslide hazard through consideration of other slopes with similar characteristics and processes to areas of previous failure, to provide a more complete understanding of the risk from landslides.
- Risk assessment of all relevant hazards to understand the risk posed to the development. In addition to alluvial fan, landsliding, rockfall, seismicity and liquefaction hazards, other hazards should also be assessed:
 - Debris flood/debris flow hazard. Consideration of debris flood/debris flow hazard for the sites mapped as active fans on the ORC hazards portal (Ara Tihi – Eastburn, Taiheke – Riverside and Karapuken – Drystone). Recommendations to further understand or address the debris flood/debris flow hazard should also be made.
 - Slope instability during a regional seismic event.
 - Land damage from fault rupture.
 - Hazards associated with Toms Creek.
 - Resta Road landslide.
 - The report discounted the Roaring Meg Fault surface rupture hazard due to recurrence interval of 40,000 years. The basis for excluding this hazard should be reviewed given this is considered a rare event that could result in medium risk under the NPS-NH risk matrix.
- Provide an NPS-NH-compliant assessment for each relevant hazard, including likelihood, consequence and resulting risk for both property and injury/fatality risk.
- Clearly document the inputs, assumptions and evidence used to support the likelihood, consequence and resulting risk ratings for each hazard. We believe this will require further hazard mapping, subsurface investigations and hazard-specific assessment.
- Description of how the spatial distribution of each classification was determined.
- Consideration of climate change to at least 100 years into the future. The report does not comment on the potential impact of climate change on any identified hazards, as required by the NPS-NH.
- Proportionate management of risk through avoidance or mitigation measures should be clarified. The GeoSolve report identifies mitigation measures for various hazards, however the NPS-NH requirement that very high risk areas are not to be developed is not clearly stated. Likewise, the report should identify the requirement for high or medium natural hazard risk to be avoided or mitigated proportionate to the level of risk.

The report should include a clear set of plans showing the spatial distribution of risk for each assessed hazard, supported by the assumptions and methodology used to derive those classifications. Management or mitigation measures in line with NPS-NH should also be made clear spatially on the maps, for example areas of 'very high risk' should be excluded from any proposed development.

6 Conclusions

The GeoSolve Preliminary Geotechnical Hazard Assessment report (2026) provides a high-level, preliminary commentary on hazards that may impact the proposed Waitiri development, based on desktop study and site inspections. The report highlights a number of hazards that have the potential to affect the proposed development, including alluvial fan hazards, landsliding, rockfall, seismic shaking and liquefaction.

The GeoSolve report notes that further assessment is required to assess the risk of various hazards in line with the NPS-NH. We agree with this statement. The report does not currently provide a

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natural hazard risk assessment consistent with the NPS-NH, because likelihood, consequence and resulting spatial risk have not been assessed for each relevant hazard, and the inputs and assumptions required to undertake an assessment have not been provided. As a result, the report does not provide sufficient information to confirm the natural hazard risk to the proposed development or to demonstrate that risk can be appropriately managed in accordance with the NPS-NH.

7 Qualifications and Experience

Anna Punt is a Principal – Engineering Geology at Beca Limited (Beca). Anna has held this position since 2024 and has been employed at Beca since 2017. Anna has 23 years' experience in engineering geology and geotechnical engineering, as a consultant and in the mining industry. Prior to joining Beca, Anna was employed as a Senior Geotechnical Engineer in the mining industry in Australia, as an Engineering Geologist in New Zealand, and as a Graduate Geotechnical Engineer in the United Kingdom.

Anna holds a Bachelor of Science (Honours) in Geology and Geographical Science, a Master of Science in Geohazard Assessment, and a Master of Mining Engineering in Mine Geomechanics. Anna is a Chartered Member of Engineering New Zealand (PEngGeol) and a member of the New Zealand Geotechnical Society.

Anna's role at Beca includes preparation and review of natural hazard risk assessments for clients including councils and the NZ Transport Agency. Anna has previously prepared expert evidence for the Environment Court.

8 Expert Witness Code of Conduct

This memorandum has been prepared in a manner generally consistent with the intent of the Code of Conduct for expert witnesses (Section 9.2 and 9.3) in the Environment Court Practice Note 2023. The data, information, facts and assumptions considered in forming opinions are set out in this memorandum. Unless stated otherwise, this report is within Anna's area of expertise and does not omit consideration of material facts known to her that might alter or detract from the opinions expressed in the memorandum.

9 References

GeoSolve Limited (2026). Preliminary Geotechnical Hazards Assessment. 2 April 2026. Reference 260204. Revision 1.

Ministry for the Environment (2024). Fast-track Approvals Act. 23 December 2024. Wellington, New Zealand.

Ministry for the Environment (2025). National Policy Statement for Natural Hazards. 15 December 2025. Wellington, New Zealand.

Otago Regional Council (2026). Natural Hazards Database. Accessed 7/7/26.
<https://www.orc.govt.nz/managing-natural-hazards/natural-hazards-adaptation/otago-natural-hazards-database/>

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10 Applicability

This peer review memorandum has been prepared by Beca Limited (Beca) on the specific instructions of Queenstown Lakes District Council (Client). It is solely for our Client's use for the purpose for which it is intended in accordance with the agreed scope of work. Any use or reliance by any person contrary to the above, to which Beca has not given its prior written consent, is at that person's own risk.

Our peer review memorandum comprises a limited desk based study of a natural hazard report prepared by GeoSolve Limited and as such, no site investigation work has been undertaken by Beca and we are relying wholly on the accuracy of the data, completeness of the information and interpretations provided by GeoSolve as author of the report listed above. Beca cannot be held responsible for any misrepresentation, incompleteness, or inaccuracies provided within that information.

Opinions included in this memorandum are based upon our understanding and interpretation of current standards and should not be construed as design advice.

To the maximum extent permitted by law, Beca disclaims all liability and responsibility (in contract or tort, including negligence, or otherwise) for any loss or damage whatsoever which may be suffered as a result of any reliance by any third party on this memorandum, whether that loss is caused by any fault or negligence on the part of Beca or otherwise

Anna Punt

Principal - Engineering Geology

on behalf of

Beca Limited

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To:	QLDC Resource Consent Team
From:	Jeannie Galavazi, Principal Parks and Open Spaces Planner
Date:	Thursday, 16 July 2026
cc:	Kenneth Bailey, General Manager Community Services
Subject:	Fast-track Approvals Act 2024 Oaks Living Ltd, Waitiri Fast Track Referral Application FTRA2603) Parks and Open Spaces - section 17 comment

1. Executive Summary

- 1.1 This memorandum provides Parks and Open Spaces input on the Oaks Living Ltd, Waitiri Creek fast-track referral application (Project).
- 1.2 Parks and Open Spaces do not support The Project proceeding on the information currently available. While the Project may provide areas of open space and some communal facilities, it has not demonstrated that it meets the relevant referral criteria of the Fast-track Approvals Act 2024 (FTAA). In particular, the Project has not demonstrated that it would contribute to a well-functioning urban environment, for the purposes of section 22(2)(a)(iii) of the FTAA.
- 1.3 Overall, the Project does not provide suitable open space or public community facilities that would meet the residents' recreation needs, and there are no suitable existing reserves or facilities in the Gibbston area.
- 1.4 It is recommended that an assessment of the requirements of the QLDC Future Parks and Reserves Provisions Plan 2021 is undertaken with regard to designing fit for purpose recreation reserves.
- 1.5 Without these matters being resolved, the Project has not demonstrated that it can be accommodated without increasing pressure on the existing Whakatipu open space and community infrastructure networks. Responding to this feedback may require additional land be used for open space or public community facilities, instead of housing or commercial areas, which goes to the overall claimed benefits.

2. Qualifications and Experience

- 2.1 This report was prepared by Jeannie Galavazi, Principal Parks and Reserves Planner at QLDC.
- 2.2 I hold a Bachelor of Parks, Recreation and Tourism Management from Lincoln University. I have 25 years of professional experience. I have been a Parks and

Reserves Planner at QLDC for nearly 11 years where responsibilities include authoring key Parks Strategies and Plans, presenting expert evidence at the Environment Court on behalf of QLDC and the assessment of development proposals and effects on the reserve and recreation network.

- 2.3 While this report relates to a referral application made under FTAA, I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. This technical report has been prepared in accordance with that Code. In particular, unless I state otherwise, the opinions I express are within my area of expertise, and I have not omitted to consider material facts that might alter or detract from the opinions that I express.

3. Assessment

- 3.1 Open spaces and some communal facilities (clubhouse, lodge) are shown in the landscape drawings in Appendix A – Masterplan Document. It is unclear from the information if all or any of the open spaces are to be vested in QLDC as public reserves, and it is assumed that the communal facilities will be private.
- 3.2 Gibbston currently has very limited public reserve land and no community facilities (eg no community hall, no library, no playground, no sports field) given its rural zonings under the Queenstown Lakes Proposed District Plan and development in the area being limited to predominantly viticulture and rural living.
- 3.3 The Project would result in a significant increase in the number of residents in Gibbston, including within medium and high density, creating a need for fit for purpose built public reserves and community facilities. The closest suitable reserves with sport, recreation and community facilities are in Arrowtown or Frankton.
- 3.4 Many of the open spaces shown on the landscape plans are in locations where the development of recreation facilities, such as community halls, sports fields and playgrounds would not be suitable. Some are located within Outstanding Natural Landscapes and others are where there appears to be a moderate – high natural hazard risk where the development of recreation facilities is not anticipated to be suitable.
- 3.5 Furthermore, the development is spread across several locations, separated several kilometres from one another or requiring crossing of State Highway 1. If suitable reserves or community facilities were provided, they would not be accessible to the majority of the residents.
- 3.6 The Project would result in increased demand on existing sport, recreation and community facilities, which are at or beyond capacity for existing residents in the Whakatipu.
- 3.7 No specific information is provided in the application with regard to stormwater and wastewater disposal areas. It is expected that at least some of the open space areas will be required for these purposes and the QLDC's Future Parks and Reserves Provisions

Plan do not allow for reserves to be burdened by stormwater and wastewater infrastructure.

- 3.8 13 archaeological and heritage sites are located on many of the identified open space areas. If these areas are proposed to be vested in QLDC, any necessary remediation works to ensure that these sites do not present a health and safety hazard would be required to be undertaken as part of the development works. If this proposal were to progress to beyond the referral stage, a robust assessment of the archaeological and heritage sites and ongoing maintenance requirements would be required in order to assess if having heritage / archaeological sites on reserves is a desirable outcome and not an onerous maintenance issue.
- 3.9 The hazard mapping (Preliminary Geotechnical Report (Appendix F)) does not include an assessment of the hazard risk across the proposed open space areas; however, it is noted that many of these are beside medium and high risk areas. An understanding of the intended use of the open space areas is required as to whether a natural hazard assessment of some or all of these spaces is required.
- 3.10 There are some recreational development opportunities that could be considered by the Project such as additional trail connections and infrastructure linking to the existing Gibbston trail. This could include a bridge and new trail on the true left side of the Kawarau River linking the Waitiri – Riverside development areas. Another opportunity could be to extend the trail up to the Eastburn development area via the paper road alignments on the true left side of the river.

4. Assessment against QLDC's Future Parks Provision Plan

- 4.1 Whilst the Project promises over 250ha of open space, the majority (if not all) of that land does not meet the QLDC criteria for a suitable recreation reserve under the QLDC Future Parks Provision Plan¹. The open space is typically steep, vegetated, beside medium or high risk hazard areas, under vineyards, under transmission lines, and/or is linear. It is also unclear if any is proposed to be vested as public reserve land.
- 4.2 The QLDC Future Parks Provision Plan sets the level of service for how much recreation reserve land (Local or Community Park) should be provided and where, except included in Attachment A. Every resident in urban areas in the district should have a Local Park an easy 5-10 minute walk from where they live. This is to ensure open and recreation space is readily available to all residents without requiring dependency on private vehicles to access. It also sets out the criteria for suitable recreation reserves (refer to pages 27 and 28 and Attachment 1) that are fit for purpose and can accommodate the community's recreation needs.
- 4.3 The minimum size for a recreation reserve (typically a Local Park) must be predominantly flat, unencumbered by hazards or infrastructure (such as overhead transmission lines or stormwater infrastructure) a minimum of 3000m², be large enough

¹ <https://www.qldc.govt.nz/your-council/council-documents/strategies-and-publications>

to provide community gathering spaces and be able to accommodate recreation infrastructure.

- 4.4 In the Drystone – Karapuke, Riverside – Taiheke and Waitiri – Kūrae areas there are over 800 residential units proposed that would generate a requirement for approximately 15,000m² of suitable recreation reserve (flat, unencumbered regular configuration) to be provided as a Local or Community Parks. This requirement will likely increase once the details of the Village and Cultural nodes is known.
- 4.5 There are no recreation reserve land requirements for Glenlee Glenroy – Mānia or Aratihi – Eastburn (if considered independently) given the residential lots are all greater than 2,000m², however this may change once details of the lodge, rural visitor and resort precinct are known.
- 4.6 There is a large open space shown in the Karapuke – Drystone area (the flatter area adjoining the State Highway) that may be suitable as a recreation reserve (Local or Community Park) however its size is not shown on the plans. This lot will contain a number of protected trees and a watercourse. Further details would be required to understand the suitability of this lot as a reserve for the community, noting this would not be accessible to the other development areas.
- 4.7 The large river terrace area adjacent to the river in the Kurae – Waitiri development area is within an ONL and is highly visible from the State Highway and therefore unsuitable for many types of recreation facilities.

5. Summary and Recommendations:

- 5.1 The Project raises significant issues concerning the provision of open space that warrants consideration at the referral stage. It is currently not acceptable to QLDC and significant changes are required before it might be.
- 5.2 The open space in the proposal is typically steep, vegetated, beside medium or high risk hazard areas, under vineyards, under transmission lines, or is linear which does not provide quality open space for a range of recreation activities. It is also unclear whether the open space areas will be encumbered by stormwater or wastewater infrastructure, which constrains the usability of the land for recreation.
- 5.3 Lack of provision of suitable recreation reserve land and community facilities within the development(s), will result in the future residents driving to existing sport, recreation and community facilities in Frankton and Arrowtown, which are already at or beyond capacity. This will come at a cost to the community that has not been considered, as the developer will be creating additional demand on existing facilities whilst not contributing to any necessary upgrades that are caused by the flow-on effects of the development.
- 5.4 It is recommended (if the application is referred) that:

- Provision of unencumbered flat recreation reserve land and reserve improvements within each urban development area must meet the requirements of a Local or Community Park as defined in the QLDC Future Parks and Reserves Provisions Plan.
- A robust assessment of the 13 archaeological and heritage sites and ongoing maintenance requirements is undertaken.
- A natural hazard assessment of some or all of the open spaces is required depending on intended use is undertaken.
- Consideration of additional trail connections and infrastructure linking to the existing Gibbston trail.

Attachment A – Excerpt from QLDC Future Parks and Reserves Provision Plan

LOCAL PARK			
Purpose		Provision guidance	Indicative amenities
 Park that is easily accessible for the immediate community, within easy walking distance (5-10 minutes) to residents in the area. Provides a basic information recreation experience for nearby residents. Vested as Recreation Reserve under the Reserves Act 1977.		New developments in Residential Urban Growth Areas require a minimum 0.3ha of local park typically requires between 0.3ha – 0.5ha. Residents shall have easy, safe access to a local park within a 400-600m walk (approximately 5 to 10 minutes). It shall be centrally located within the residential development. The exact size will be determined by the size of the subdivision and location and types of the other parks in the area. This shall be of a configuration that is predominantly flat quality recreation land, suitable for a variety of recreation activities and structures. It will provide a transition/buffer space from adjacent roads and housing, good street frontage and contains a flat kick-around space of approximately 30m by 30m.	> Play spaces/equipment > Flat, kick around space 30m x 30m with buffers > Flat space to be a maximum 6% gradient > Areas for socialising and respite > Landscaping > Specimen trees > Furniture > Ability to place recreation infrastructure on the land <i>Underground services and above ground infrastructure: Local park should be vested free of encumbrances unless otherwise agreed.</i>
Development contributions – reserve land		Development contributions – reserve improvements	
Land provider	DC offsets available?	Asset provider	Offsets available?
Developer provided if it meets provision guidance. Council should look to acquire in larger developments if not provided or where cumulative impacts of developments require this.	Yes – only for land that can be vested as recreation reserve. (If part of the reserve has a stormwater function this must form a separate parcel and be vested as Local Purpose (Stormwater).) If land not provided Reserve Land DC payment required if in Residential Urban Growth Area/and when changing from rural to residential zone and final lot sizes are less than 2000m².	Developer provided – Can include defined/ agreed d assets. All developments to pay Reserve Improvement Development Contributions.	Yes – UePlay equipment, park furniture, water fountains. No – Rubbish bins, footpaths and pathways, planting signage.

COMMUNITY PARK			
Purpose		Provision guidance	Indicative amenities
 Area of open space that provides a variety of informal recreation experiences for residents across a neighbourhood/suburb, well used by the community for informal recreation, social, cultural and leisure experiences. Vested as Recreation Reserve under the Reserves Act.		A community park typically requires 1ha to 2ha of recreation reserve and shall be generally flat or undulating land. They shall be strategically and centrally located within the residential development to achieve community park purpose and should be able to accommodate buildings and structures – to provide community gathering space, offering a range of recreation opportunities and community connectivity. Residents in residential zones should have access to a community park within a 1500m walk. A community sportsground park can serve a multi-use function with a community park. Community facilities may be accommodated on community/sportsground parks.	> Perimeter trails or trails within park > Multiple kick around spaces > Areas for socialising and respite > Furniture > Barbeque facilities > Larger and more specialised informal recreation infrastructure such as large playgrounds, hard courts, skate parks > Car parking > Toilets > Water fountain > Shade / shelter > Specimen trees > Perimeter trail <i>Underground services and above ground infrastructure: Community parks should be vested free of encumbrances unless otherwise agreed.</i>
Development contributions – reserve land		Development contributions – reserve improvements	
Land provider	DC offsets available?	Asset provider	Offsets available?
Developer provided if it meets provision guidance. Council should look to purchase for cumulative developments or in high growth priority areas where developers are unable to meet the provision guidance.	Yes – if land not provided Reserve Land DC payment required if in Residential Urban Growth Area/and when changing from rural to residential zone and final lot sizes are less than 2000m².	Developer provided - Can include defined/agreed assets. All developments to pay Reserve Improvement Developer Contributions.	Yes – Play equipment, recreation facilities and infrastructure (e.g. hard courts, pump tracks, skateparks), BBQ's, picnic shelters, public toilets. No – Rubbish bins, footpaths and pathways, planting signage.

Technical Memo

To:	QLDC Resource Consent Team
From:	Marcus Langman – Consultant Planner - MLPC
Date:	Thursday, 16 July 2026
cc:	David Wallace – General Manager Planning and Development
Subject:	Fast-track Approvals Act 2024 Oaks Living Limited, Waitiri Project Fast Track Referral Application (FTRA2603) Planning – s 17 comment

1. Executive Summary

- 1.1. The Oaks Living Limited referral application is for a staged development in five separate development locations spanning from the Crown Terrace in the Wakatipu Basin to the west, three separate areas in the Gibbston Valley, and a development area on a spur at the eastern end of Victoria Flats to the east. The sites are geographically isolated, with two of the sites on the northern side of the Kawarau River (Kūrae - Waitiri and Ara Tihi – Eastburn), one on the northern side of State Highway 6 (Taiheke – Riverside), and two on the southern side of State Highway 6 (Mānia - Glenlee/Glenroy and Karapuke – Drystone). Two of the sites, while adjacent to each other, are bisected by State Highway 6 (Taiheke – Riverside and Karapuke – Drystone).
- 1.2. The proposal includes development of residential, commercial, rural lifestyle development, with an internal network of open space, and provision for community facilities, recreational activities including an 18-hole golf course, and land set aside for an educational facility.
- 1.3. From a planning perspective, the project represents poor urban form, is fragmented, and cannot achieve a well-functioning urban environment. The project potentially gives rise to reverse sensitivity effects on adjacent rural land uses, the Victoria Flats Landfill, and Transpower's National Grid network. The project is directly contrary to the Queenstown Lakes District Plan, the Otago Regional Policy Statement, the National Policy Statement on Urban Development (**NPS-UD**), and the Queenstown Lakes Spatial Plan. The project is considered likely to have adverse effects on the Kawarau Gibbston Dark Sky Reserve, and may result in significant potential adverse effects on the long-term finite resource of Gibbston Valley as an important location for viticulture to the District, Region and New Zealand.
- 1.4. Given the application is for a staged approach to development on geographically separate areas, it is my opinion that under section 21(1)(a)(ii) FTAA, each stage must meet the requirements set out in the Minister's criteria under section 22 FTAA. That has not been demonstrated.

- 1.5. Taking into account section 21 FTAA and the criteria in section 22 FTAA, it is recommended that the referral application is declined, as there is insufficient information to inform a decision under section 21(1)(a) that the project (and each of its stages) would have significant regional or national benefits. I also consider that the proposal is likely to have significant adverse effects on the environment that I cannot foresee being addressed in a substantive application.
- 1.6. Should the Minister consider referring the application, it is considered that the following information should be requested from the applicant for the substantive application:
- a) A full assessment as to how the proposal meets (or, does not meet) the requirements for a well-functioning urban environment as set out in Policy 1 of the NPS-UD, as well as demonstrate how the proposal meets Objectives 1-8;
 - b) An assessment demonstrating how the proposal addresses housing needs (including in the location proposed) and how the proposal will deliver affordable housing using an appropriate mechanism (and at what price point across all development nodes), taking into account the need for ongoing costs to privately fund ongoing private infrastructure, parks, roads, and roading services if these are to be retained in private ownership and not vested;
 - c) A comprehensive integrated transport assessment – similar to the scope of the ITA that QLDC considers necessary for the Ridgeburn FTAA substantive application but focused on the Oaks Living project, as developed co-jointly by NZTA and QLDC, which is attached to Appendix 1 of these comments. This should form the starting point of what the scope of this applicants ITA should include.
 - d) An assessment of the feasibility of the proposed school site, taking into account size, shape and need, supported by consultation with the Ministry for Education, and confirmation from the Ministry of Education on school capacity, catchment implications, funding, timing and staging for both primary and secondary schools to service the development.
 - e) Confirmation that the proposal would not require infrastructure investment, servicing capacity or funding to be redirected from Spatial Plan priority growth areas, thereby undermining the implementation of the Spatial Plan, Long Term Plan, and associated infrastructure delivery programmes.
 - f) A revised natural hazards risk assessment in accordance with the NPS-NH as set out in the Section 5 of the Natural Hazards peer review undertaken by Anna Punt – Beca.
 - g) A lighting assessment of the proposal and proposed mitigation that demonstrates how the project will continue to protect the Kawareau Gibbston Dark Sky Park to address the matters raised in the peer review by Chris Martin.
 - h) Proposed three waters network design solutions and network locations, including feasibility for potable water distribution and location of any wastewater disposal fields and how these integrate with public open space.
 - i) Noise, odour and amenity assessments in relation to the Victoria Flats Landfill and demonstration as to how any potential reverse sensitivity effects are to be managed so as not to compromise the ongoing operation and development of the landfill, including any future consenting required, and assessment of whether the development of Kūrae -Waitiri is even feasible without creating reverse sensitivity effects on the regionally significant landfill.
 - j) An assessment of the effects of the proposal on the viticultural values of the Gibbston Valley, including reverse sensitivity (particularly to frost fans and other critical viticultural machinery), economic effects on land value and ongoing viability for grape-growing.

- k) A social impact assessment to quantify the effects on future residents of these developments, in particular accessibility to social infrastructure, recreation, and employment.
- l) A comprehensive revised landscape assessment that addresses each of the development stages/areas, addressing the matters set out in the landscape peer review by Matthew Jones – Isthmus Group.
- m) Identification of any dependencies required as part of the five development nodes being developed across five staging over 11 years, for matters such as intersection upgrades, roundabouts, and provision of infrastructure (including social infrastructure such as any school).
- n) An assessment of the requirements of the QLDC Future Parks and Reserves Provisions Plan 2021 with regard to designing fit for purpose recreation reserves.
- o) An assessment of the development's contribution to greenhouse gas emissions compared to development in existing and planned urban areas to also inform a contribution to the evaluation of the proposal as part of a well-functioning urban environment.

2. Scope

- 2.1. The scope of this feedback is limited by s 17(b) of the FTAA, which provides that comments are made that are relevant to the application and the decision on the application that the Minister is required to make under s 21 FTAA.
- 2.2. This assessment is limited to the information available (in the referral application) and listed below (refer paragraph 6.1 – 6.3).
- 2.3. The memorandum focuses on reviewing the planning framework analysis in the application package and providing comment on matters that are relevant to the Minister's decision-making under s 21 and s 22 FTAA. In addition, I have considered whether any further information is needed to gain an understanding of the project to inform decision-making on the referral.

3. Introduction

- 3.1. This regulatory planning memorandum has been prepared by Marcus Langman Planning Consultant on behalf of Queenstown Lakes District Council (**QLDC**), to summarise key planning framework matters relating to the FTAA referral application made by Oaks Living Limited (**OLL**) for a mixed use development comprised of five separate and distinct development areas on the Crown Terrace, within the Gibbston Valley, and on the Waitiri Peninsula plateau, a prominent spur above the Kawarau River (the **project**).
- 3.2. I note that other technical experts are preparing technical memoranda that may overlap with the content of this memorandum, in terms of landscape, dark sky values, transport, parks, geotechnical matters, the Victoria Flats landfill, economics, strategic growth and infrastructure. In preparing this memorandum, I have reviewed all of the draft technical memoranda to be attached to the Council's comments.

4. Qualifications and Experience:

- 4.1. I have a Bachelor of Resource Studies from Lincoln University (1998). I have 25 years' experience in planning, of which 24 have been in New Zealand. For the last eleven years I have been a sole practitioner, working for a range of private developers, local authorities and non-governmental organisations on consenting and policy matters in the Canterbury, Otago, Waikato, Northland and Auckland regions. I am currently engaged by Kaikōura District Council and Waitaki District Council assisting with their district plan reviews, and provide frequent support to QLDC on both policy and consenting matters. I am providing assistance to QLDC to support their management and planning input into a number of fast-track consents and supporting internal staff with planning advice.
- 4.2. My experience with QLDC spans a period of 8 years, including appearing as a reporting officer for the Wakatipu Basin rezoning requests as part of the district plan review, provision of natural hazards planning advice, as well as appearing as an expert witness in the Environment Court for QLDC on numerous occasions. I have had significant experience in urban growth-related matters, including preparing the residential component of the Canterbury Regional Policy Statement Chapter 6 – Recovery and Rebuilding of Greater Christchurch, as well as presenting expert evidence on a number of urban growth-related plan changes on behalf of Christchurch City Council and Environment Canterbury. I also prepared, and was the reporting officer at hearings for the Energy, Infrastructure and Transport chapter of the Otago Regional Policy Statement.
- 4.3. I am very familiar with the Gibbston Valley, Victoria Flats and Crown Range areas. More recently, I have been involved in two QLDC proposed district plan appeals that have sought rezonings to enable rural industrial land uses in the Victoria Flats area, close to the Kūrae-Waitiri development in this proposal.

5. Expert Witness Code of Conduct

- 5.1. While this report relates to a referral application made under the FTAA, I have prepared this memorandum in compliance with the Code of Conduct for Expert Witnesses set out in the Environment Court's Practice Note 2023. I confirm that this memorandum is within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- 5.2. I am aware of my role to assist QLDC as an independent planning expert. As such, the recommendations made in this memorandum are my own, based on my expertise.

6. Matters for Review

- 6.1. The following application documents were considered as part of my memo:
 - a) 200009 - Fast track acceptance Civil Report DRAFT.pdf
 - b) Waititi Project – Referral Application Planning Assessment
 - c) Appendix A - Masterplan Document.pdf
 - d) Appendix B - Project Area Maps.pdf
 - e) Appendix C - Economic Assessment.pdf
 - f) Appendix D - Housing Typologies.pdf
 - g) Appendix E - Infrastructure Report.pdf
 - h) Appendix F - Geotechnical Assessment.pdf
 - i) Appendix G - Transport Assessment.pdf
 - j) Appendix H - Ecological Assessment.pdf
 - k) Appendix I - Archaeological Appraisal.pdf

- l) Appendix J - Records of Title - Drystone.pdf
- m) Appendix J - Records of Title - Eastburn.pdf
- n) Appendix J - Records of Title - Glenlee_Glenroy.pdf
- o) Appendix J - Records of Title - Riverside.pdf
- p) Appendix J - Records of Title - Waitiri.pdf
- q) Appendix J - Summary of Interests on Titles.pdf
- r) Appendix K - Consultation-Notification Parties.pdf
- s) Appendix K - Consultation-Notification Parties_Redacted.pdf
- t) Appendix K - Meeting Records.pdf
- u) Appendix L - Letter from Kā Rūnaka.pdf
- v) Appendix M - Landscape Assessment.pdf
- w) Appendix N - Acoustic Assessment.pdf
- x) Appraisal the Station at Waitiri Development final no Vic Flats.pdf
- y) Landowner Approval.pdf
- z) Landowner Approval_Redacted.pdf
- aa) Lodgement Authority.pdf
- bb) PA25851 - Waitiri Development - Landscape Package IS18 - FOR CONSULTATION.pdf
- cc) Planning Summary.pdf
- dd) Waitiri Project Fast-track Application Memo.pdf

6.2. The following legislative and planning frameworks have been considered:

- a) The FTAA;
- b) The RMA;
- c) Relevant 'national direction' promulgated under the RMA, and of particular relevance, the National Policy Statement on Urban Development 2022 (**NPS-UD**), the National Policy Statement on Highly Productive Land (NPS-HPL), the National Policy Statement on Infrastructure (**NPS-I**), the National Policy Statement on Indigenous Biodiversity (**NPS-IB**), and the National Policy Statement on Natural Hazards (**NPS-NH**);
- d) The Water Conservation Order for the Kawarau River (**WCO**);
- e) The Proposed Otago Regional Policy Statement 2021 (**ORPS**);
- f) The Queenstown Lakes Proposed District Plan (**PDP**); and
- g) The Queenstown Lakes Spatial Plan (**Spatial Plan**).

6.3. Lastly, I have reviewed all technical memoranda and peer reviews filed with the QLDC comment.

7. Background

7.1. The application includes a project for five distinct development areas, spanning the Crown Terrace, three sites in the Gibbston Valley and a spur overlooking Victoria Flats.

7.2. The sites include land within the Wakatipu Basin Rural Amenity Zone (**WBRAZ**), Gibbston Character Zone (**GCZ**) and Rural Zone (ONL or ONF). Each of the development sites is located in the following zones and landscapes:

Development area	Zones	Additional matters
Ara Tihi – Eastburn	Part WBRAZ, Part Rural	Landscape Character Unit 20 – Crown Terrace (capability to absorb development – Very Low) Part ONL

		Part Eastern Wakatipu Basin Priority Area 21.22.16 - Landscape capacity for rural living – very limited
Mānia - Glenlee/Glenroy	Part GCZ, Part Rural	ONL
Taiheke - Riverside	GCZ	Part ONL Part ONF Part Wāhi Tūpuna Part Kawarau River Priority Area 21.22.9 (Assessment Extent)
Karapuke - Drystone	GCZ	ONL
Kūrae - Waitiri	Part GCZ, Part Rural	Part ONL Part ONF Part Wāhi Tūpuna Part Victoria Flats Priority Area 21.22.17 - capacity for urban expansions – extremely limited or no landscape capacity Part Kawarau River Priority Area 21.22.9 - landscape capacity for urban expansions – extremely limited or no landscape capacity

7.3. The application material notes that the project will be delivered in multiple stages.¹ This is relevant to the consideration of the Minister under s 21(1)(a) FTAA which requires that the whole project must meet the criteria in s 22 FTAA, and if staged, each stage of the project would meet those criteria if considered as a stand-alone project.

7.4. The Gibbston Character Zone is an “Exception Zone” which is a concept used in Chapter 3, Strategic Directions, of the Proposed District Plan. However, the fact that the Gibbston Character Zone is specified in 3.1B.5.a as an Exception Zone does not mean that the site is not ONL. What it means is (and this is relevant to all of the development areas except Ara Tihi – Eastburn):

- a) That the strategic objectives and strategic policies listed in 3.1B.6 do not apply to consideration or determination of any applications for any subdivision, use or development within any of the Exception Zones;
- b) In each Exception Zone located within an ONL (as is the case for Gibbston Character Zone), any application for subdivision, use and development is provided *for only to the extent anticipated by that Exception Zone*, and on the basis that any additional subdivision, use and development not provided for by that Exception Zone protects the landscape values of the relevant Outstanding Natural Landscape.

7.5. Of relevance to the Ara Tihi – Eastburn rural lifestyle component, the development area is identified in the Landscape Character Unit 20 – Crown Range, which has a range of landscape values that are identified in Schedule 24.8 of the PDP. Parts of this site which are not proposed to be developed are within an ONL. However, development adjacent to, or even near an ONL or ONF, can have adverse impacts on

¹ Waitiri Project – Referral Application Planning Assessment at pages 3 and 37

the values of the ONL itself – particularly if in the foreground of views towards that ONL.

- 7.6. Gibbston Valley is home to approximately 20 vineyards, and is internationally known for its wineries which are a key tourism drawcard for the Queenstown District. Gibbston Valley also contains the Kawarau Gibbston Dark Sky Park. This was sought and applied for by the Gibbston Community Association, and its status recognised in 2024.
- 7.7. Transpower's National Grid lines run through two of the development areas. These are the Karapuke – Drystone development area, and Mānaia – Glenlee/Glenroy development area.
- 7.8. Given the goldmining and farming history of the area, there are a relatively large number of archaeological sites located within and adjacent to the development areas. These are addressed in Appendix I of the application material, which is a desk-top appraisal of the archaeological values.
- 7.9. The application material describes the project across the five development sites. It includes residential development, open space networks, a village precinct, provision for land for a school, a cultural development area, rural visitor accommodation and resort, a lodge, an 18-hole golf course, a clubhouse/community hub, a nursery, and in the Kūrae – Waitiri development area, a solar farm.
- 7.10. None of the areas are identified for urban development or expansion in either the PDP or Queenstown Lakes Spatial Plan. The area within the WBRAZ has not been identified for the WBRAZ Lifestyle Precinct Sub Zone, after an extensive process to identify areas that were appropriate for rural lifestyle development as part of the district plan review. The capacity to absorb additional development was classed as very low. Those remaining areas identified for development in the Gibbston Character Zone or Rural Zone are identified as ONL or ONF in the Council's planning maps.
- 7.11. The applicant's planning assessment notes there were remaining Environment Court appeals on the Victoria Flats and Kawarau River Priority Areas. Those Priority Area appeals were resolved in March 2026. Additionally, a Priority Area overlay does not impact the need to protect the values of any underlying or adjacent ONL or ONF, or RCL identification in the planning maps relating to GCZ and Rural Zone land. There remains a live appeal on the Victoria Flats that seeks General Industrial Zone by The Station at Waitiri.
- 7.12. The provisions of the GCZ, WBRAZ and Rural Zone are operative, and are the relevant planning framework for consideration of the five development areas that form the project.

8. Analysis of Referral Application Package

8.1. General Comments

- 8.1.1. This project seeks to proceed with a mix of urban residential and commercial development, as well as rural lifestyle development, without the benefit of a plan change, in an area that is not served by public infrastructure, and contains significant transport and traffic constraints.

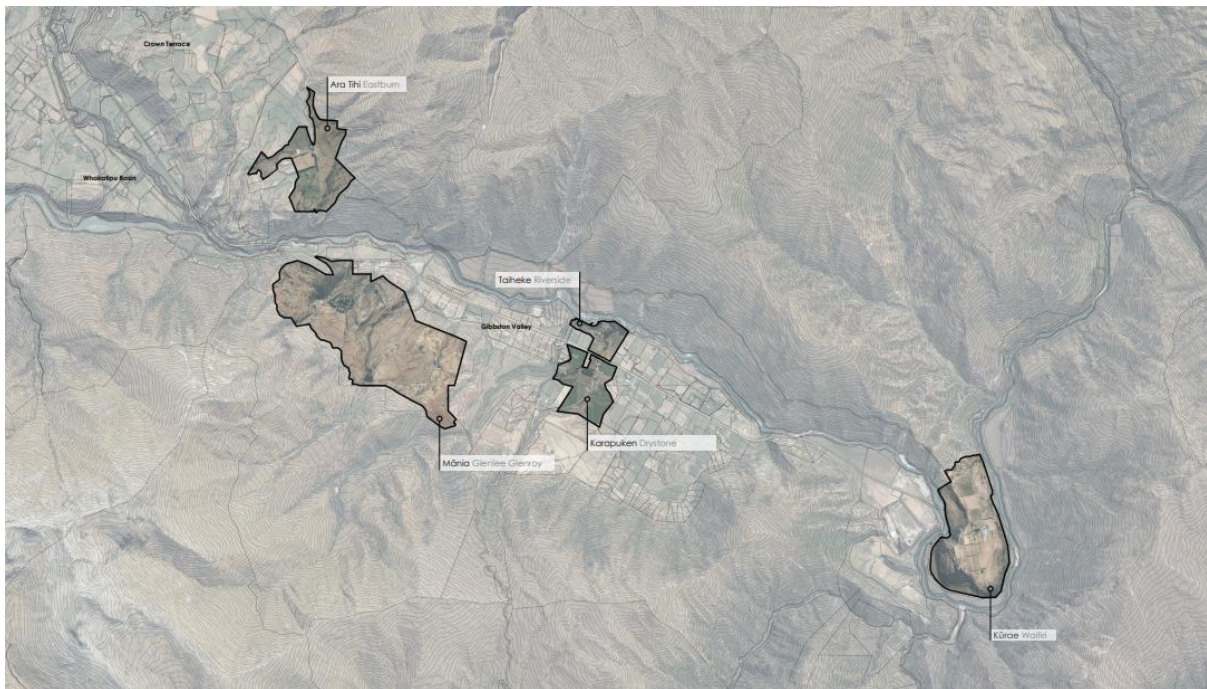


Figure 1 – Project overview identifying the five development stages

8.1.2. While the application material purports or claims to provide a co-ordinated and interrelated response to land use, it is difficult to understand that inter-relationship except to the extent of land ownership, and a proposal to connect private potable water services, which I address later in this report. The sites are fragmented, (except for Taiheke - Riverside and Karapuke - Drystone) distant, and distinct. While the benefits are promoted as a whole application, in my view, the application material *should* be seen as separate projects, given that in the application material states that each development area will be constructed in a separate stage, over the course of 11 years. That is because there is a real risk that some stages won't proceed. There is a risk that benefits may not be realised if some activities, for example a school or commercial area, or other services such as open space that are intended to serve all of the development do not proceed. If viewed separately, the benefits associated with each development area are likely to be significantly less than what in my view could be considered regionally significant.

8.1.3. A full review of the consents required has not been undertaken. That is because the planning assessment² does not tie the separate development areas to the consents being sought, making it difficult to follow. In my opinion, the consents sought should be split out for each of the five development areas if the proposal is to proceed to a substantive application. Each of the exceedances beyond permitted standards specified in the plan should be quantified (whether it is for earthworks, setbacks, or building size etc.). These need to be supported by clear and monitorable plans for development to ensure compliance, and to ensure that any decision-maker is clear about what is being approved.

8.1.4. The following sections outline key planning concerns with the application material.

Traffic and Transport

8.1.5. Council's experts have raised significant concerns regarding transport and traffic effects as a result of the project which are addressed in the technical memoranda. In particular:

² At 8.1.1 page 43

- i) Likely levels of private vehicle use resulting from limited transport alternatives are understated;
- ii) Integration with the wider Whakatipu transport network;
- iii) Cumulative effects on the SH6 corridor;
- iv) Network resilience and future capacity constraints;
- v) The economic costs associated with increased congestion and travel delay;
- vi) Use of average volumes of traffic for State Highway 6, which does not take into account seasonal variations or changes in volumes as a result of development (which will impact intersection design);
- vii) The traffic generation estimates utilise Australian data sources and appear very low for an area with no access to public transport;
- viii) There is no consideration of the NZTA Planning Policy Manual (PPM) for site distances; and
- ix) Roundabouts on State Highway 6 would be the preferred intersection form in at least 4 locations based on the NZTA Planning Policy Manual, and there is no assessment on their feasibility and impact on the strategic function of the highway.

8.1.6. In my opinion, I consider that there is insufficient information on transport matters to gain a proper understanding of the proposed development and should be declined for that reason. Council is able to provide advice on what it considers should be included in an ITA, and it is recommended this is undertaken in consultation with NZTA given the clear impact on state highways, and the Council.

Three Waters Infrastructure

8.1.7. In relation to 3 waters infrastructure, the project seeks to include a combined works treatment plant for each site. This in itself indicates a lack of integration between the sites. Reticulated potable water for four of the sites is proposed, excluding Ara Tihi – Eastburn which will be supplied by bore water. Bore water is also proposed to supplement Riverside, Drystone and Glenlee/Glenroy.

8.1.8. The networks will be privately owned and operated. It is not clear how these linkages for potable water will be made, where the infrastructure will run, and it is assumed the applicant seeks to utilise public roads. Council advises that it does not accept private infrastructure on public assets (noting that this is also State Highway 6). In addition, potable water will need to traverse the Kawarau River from Waitiri.

8.1.9. I note that no information has been provided on the location of wastewater disposal fields. These have the potential to conflict with open public space areas and recreational activities. Further detail is needed on the design, location, and proposed networks for the development areas, and how they are proposed to be served.

Strategic growth

8.1.10. Council has prepared a memorandum on strategic growth matters. The report records that the application does not show that it is needed to meet identified housing demand, addresses affordable housing needs, or contribute to a well-functioning urban environment (as sought by Policy 1 of the NPS-UD) for the purposes of section 22(2)(a)(iii). I elaborate further on Policy 1 in this memorandum.

8.1.11. I concur with the memorandum setting out these matters. Affordable housing needs to be delivered through a reliable mechanism to ensure that the benefits of affordable housing can be realised. In addition to the unknown fixed price for affordable housing, ongoing costs need to be considered, given that it appears all infrastructure, parks and

roading and associated assets will be privately owned and operated. This places the potential for ongoing fixed costs for owners, which are unknown and not quantified.

Victoria Flats Landfill

- 8.1.12. Potential reverse sensitivity in relation to the proposed residential development at Kūrae – Waitiri and its proximity to Victoria Flats Landfill has been identified as a significant issue. The landfill site is identified as regionally important in the Otago Regional Policy Statement (ORPS) HAZ-CL-P19. The presence of residential development in relatively close proximity has the potential to put limitations on the operation of the landfill in the future, due to effects that are reasonably expected to be produced by a landfill. It also has the potential to limit the extension of the landfill should that be required in the future beyond its existing consented extent. QLDC has included a memo that outlines the risks to the operation of the landfill, and concerns regarding potential reverse sensitivity effects, and limitations on the use of no-complaints covenants.
- 8.1.13. The NPS-I addresses resource recovery and waste disposal facilities as additional infrastructure, which is a subset of infrastructure. Reverse sensitivity is addressed in Policy 10 of the NPS-I. While I acknowledge that the provisions of Policy 10 apply to decision-makers on planning instruments (and this application is for a resource consent), a development of the scale proposed, being urban development in an otherwise rural area, would normally be considered through a plan change process. In my opinion, the matter addressed in Policy 10 are relevant matters for consideration. Any planning assessment should consider those matters, as well as the provisions of ORPS policy HAZ-CL-P18 which provides for restricting the establishment of activities that may result in reverse sensitivity effects near waste management facilities and services.
- 8.1.14. The existing application does not include any consideration of potential reverse sensitivity effects on the Victoria Flats Landfill. I am aware through my work for the QLDC on PDP appeals, that Scope Resources Limited, the landfill operators have opposed development in the vicinity of the Kūrae - Waitiri development node, in respect of sensitive activities including residential activities. In my opinion, consideration of the potential impacts of residential activities on the operation of the landfill should be demonstrated prior to acceptance of the application, to be consistent with the intention of the NPS-I, and recognising the provisions set out in the ORPS.

Economics

- 8.1.15. Council's economic experts have raised a number of gaps in the economic assessment provided as part of the application. In relation to housing supply, that includes:
- a) likely dwelling typologies;
 - b) price points;
 - c) target market;
 - d) the extent to which the proposed housing mix is likely to improve housing affordability or meet workforce housing needs; and
 - e) current housing capacity in the district (taking into account short, medium and long term supply).
- 8.1.16. The economic assessment provided by the applicant is narrowly framed. It does not consider:

- a) potential redirection, displacement or substitution of economic activity;
- b) consideration of the extent to which economic impacts are genuinely additional;
- c) economic impacts of the loss of productive land, or consideration of alternative uses;
- d) potential economic costs as a result of reverse sensitivity on the Victoria Flats Landfill; and
- e) the economic benefits and associated economic costs when considering if the project delivers significant regional or national benefits

8.1.17. In my opinion, the application needs to clearly identify these matters as part of the information to support the application, and this information should be sought prior to consideration for acceptance into the fast-track process. In addition, given that the project is staged and that each development node is separated geographically, each stage needs to demonstrate that, as a standalone project, it provides regional or national benefits.

Natural hazards

8.1.18. A preliminary review of natural hazards has been undertaken by Geosolve for the applicant. QLDC has peer reviewed the report and attached the review as a technical memorandum. The key findings of the review are that:

- The hazard characterisation presented does not fully represent the nature and extent of hazards and their potential impact on the proposed development.
- The GeoSolve report does not provide a risk assessment aligned with the NPS-NH, as likelihood and consequence were not assessed to inform resulting 'risk' categories for each hazard, as noted in Section 3.7 of the report.
- Recommendations for further work are vague and, in the absence of further clarification, may not allow risks to be appropriately addressed at subsequent design stages.

8.1.19. The NPS-NH requires that natural hazard risk levels must be assessed for development using the risk matrix set out in Appendix 1 of the NPS measures a combination of likelihood and consequence, then provides corresponding policies around varying levels of risk. This applies to all development under the RMA (with an exception for infrastructure and primary production).

8.1.20. In addition to this, the Beca report makes a number of recommendations to improve information required at Section 5. I consider that this information is necessary to understanding whether significant environmental effects are likely to occur as a result of development prior to the development being referred to the fast-track process.

8.1.21. Given this uncertainty, I consider that the project should be declined for referral. If the Minister is minded to approve referral, this information should be sought and considered before it is referred.

Kawarau Gibbston Dark Sky Park

8.1.22. The Gibbston Valley, where three of the urban areas are proposed, is part of the Kawarau Gibbston Dark Sky Park. Mr Martin has set out the risk the project has in relation to Dark Sky Park, and potential impacts of urban development on it.

8.1.23. In my opinion, these potential impacts have not been adequately addressed by the applicant, and should be a relevant matter for the Minister's consideration under section 22(2)(b), and is inconsistent with policies in the district plan that seek to protect the values of the night sky. Protection of the night sky is significant for the integrity of the Gibbston Character Zone and its intended use, and has the potential

to result in significant adverse effects on tourism, Queenstown's identity, and its international reputation. Allowing sporadic urban development to undermine the dark sky outcome sought for the Gibbston Valley, particularly when housing development can be provided elsewhere in the district, in my view creates significant reputational risk to both the Council and to central Government.

Parks and reserves

- 8.1.24. A review has been undertaken regarding the provisions of parks and reserves for the project. That review has concluded that there is insufficient information on parks and reserves to be provided as part of the application, and that an assessment is undertaken against the requirements of the QLDC Future Parks and Reserves Provisions Plan 2021, to ensure that open spaces and parks are fit for purpose.

Landscape

- 8.1.25. The landscape review considers that the project does not adequately assess each of the development areas against the landscape attributes and values of their respective sites and development areas, which results in a lack of understanding of the impacts on ONLs and ONFs. This subsequently leads to a lack of understanding as to how the project will meet the relevant objectives and policies in the PDP in relation to landscape value, in Chapter 3 – Strategic Direction, Chapter 6 – Landscape and the Rural, GCZ and WBRAZ chapters.
- 8.1.26. In my opinion, a significantly revised landscape assessment is required so that the Minister can consider the scale of effects in relation to landscape under section 21(5)(c). This will also inform the extent to which the project is consistent with the PDP and ORPS in relation to section 22(2)(a)(x).

Impact on the Gibbston Character Zone and viticulture resource

- 8.1.27. Karapuke – Drystone and Taiheke – Riverside, are classified as highly productive land under the National Policy Statement on Highly Productive Land (NPS-HPL), being land that is Land Use Capability (LUC) 3 and nearest equivalent to general rural or rural production zones. The sites are not yet subject to a resource consent application, and so they are not excluded from the definition of highly productive land. This has not been assessed by the applicant, on the basis that if referral is approved, it will no longer be classified as highly productive land.
- 8.1.28. In addition, Karapuke – Drystone, Taiheke – Riverside, and Mānia – Glenlee Glenroy are located within or partially within the Gibbston Character Zone, a specific rural zone for which the principal purpose is to provide for viticulture and commercial activities with an affiliation to viticulture. The objectives of the GCZ seek to protect the economic viability, character and landscape values of the zone by enabling viticulture and other appropriate activities that rely on the rural resource of the Gibbston Valley and manages the adverse effects resulting from other activities within the zone.
- 8.1.29. QLDC's economic review notes that beyond the direct loss of productive rural land, urban development may influence land market expectations and increase speculative pressure on surrounding rural properties, making productive viticulture less economically viable over time and creating pressure for further urban encroachment. These broader land use and market effects represent a potential opportunity cost that has not been considered in the economic assessment.

- 8.1.30. In addition to economic effects, there is also the potential for reverse sensitivity effects, for example complaints regarding noise from the use of frost fans. Many of the residential sites are located directly adjacent to rural areas, with no buffer between adjacent rural activities and residential development. This has the potential to increase conflict between incompatible activities in the areas, in particular the southern part of Karapuke-Drystone, and the eastern end of Taiheke – Riverside. While the applicant has acknowledged these reverse sensitivity effects, the use of no-complaints covenants is not considered adequate to protect people from the effects of noise on residents. Furthermore, where there are not existing viticulture activities, the presence of new urban development may lead to opposition to establishment of new frost fans or vineyards. This is contrary to the purpose of the Gibbston Character Zone in which much of the proposed development is located, which is to promote the use of the zone for viticulture or viticulture-related commercial purposes.
- 8.1.31. I am concerned that little consideration has been given as to the impact of urban development on the tourism values, amenity values and future viability of Gibbston Valley as a wine-making area. Given its limited geographical extent, the Gibbston Valley is a finite resource, with known value to the identity of Central Otago as a wine tourism destination and wine-making region. Enabling urban development on this limited resource is irreversible and has the potential to directly and indirectly impact the future viability of viticulture in the Gibbston Valley.
- 8.1.32. A full evaluation of the effects of the project on the Gibbston Valley viticultural resource will inform the Minister as to the scale of effects under section 21(1)(5)(c), and the extent to which the project is consistent (or otherwise) with the PDP and ORPS under section 22(2)(a)(x).

Well-functioning urban environment and greenhouse gas emissions

- 8.1.33. The application contains very little supporting information on how the project achieves a well-functioning urban environment, as set out in Policy 1 of the NPS-UD. While the application claims that it will achieve some of the matters in Policy 1, there is no reference to evidence or actions about how that will be achieved. Policy 1 states:

Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:

- (a) have or enable a variety of homes that:*
 - (i) meet the needs, in terms of type, price, and location, of different households; and*
 - (ii) enable Māori to express their cultural traditions and norms; and*
- (a) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and*
- (b) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and*
- (c) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and*
- (d) support reductions in greenhouse gas emissions; and*

(e) *are resilient to the likely current and future effects of climate change.*

- 8.1.34. I note that the list above is a minimum for describing a well-functioning urban environment. In the application material, there is no supporting information that addresses housing need in terms of type, price and location of different households, nor how the project seeks to meet the need through provision of development, except to the extent that specific site sizes are included. Nor is there any analysis of supply and integration of business land within the development, as it relates to the development being proposed.
- 8.1.35. The project, being located over five distinct site, does not promote walkability or accessibility for future residents between the sites. The application states that the project is in close proximity to planned employment areas and public transport routes, but these are not identified, nor am I aware which areas the applicant is purporting that these will be provided. No public transport is planned or available in this area, yet the project relies on it to mitigate effects.
- 8.1.36. There is no information provided around employment, and accessibility to job markets. There is limited commercial development proposed, and it is expected that a majority of residents will commute to work. The implication is that this project is located at distance away from main employment centres, resulting in increased trip distances, and subsequently, increased vehicle emissions.
- 8.1.37. The project lacks any assessment of how it will support reduction in greenhouse gas emissions. While the project includes provision for a solar farm, no attempt is made to qualify or quantify how this will offset increased greenhouse gas emissions as a result of transport, nor are the effects of that type of activity, assessed.
- 8.1.38. Finally, while the applicant states that the project will deliver a number of positive effects in terms of climate change resilience and sustainability, these are not qualified or assessed in the application material.

Otago Regional Policy Statement

- 8.1.39. The ORPS sets out the high level direction for development and land use in the Otago region and is another matter for consideration under section 22(2)(a)(x). This evaluation concentrates on the key directions in the ORPS which manage urban development. Depending on further information supplied, further evaluation is required against a range of matters such as landscape, indigenous biodiversity, and transport that will be engaged and require assessment.
- 8.1.40. In relation to urban expansion provided for under the ORPS, the project is contrary to UFD-P4, which requires that urban expansion only occur where it:
- contributes to establishing or maintaining the qualities of a well-functioning urban environment;
 - is consistent with strategic plans or required to address a shortfall;
 - achieves consolidated, well designed and sustainable development in and around existing urban areas;
 - is logically and appropriately staged and will not result in inefficient or sporadic patterns of settlement and growth;
 - is integrated efficiently and effectively with infrastructure, development infrastructure and additional infrastructure in a strategic, timely and co-ordinated way;

- addresses issues of concern to iwi and hapū, including those identified in any relevant iwi planning documents;
- manages adverse effects on other values or resources identified in the RPS that require management or protection;
- avoids highly productive land except as provided for in the NPSHPL, and considers adverse effects, particularly reverse sensitivity effects, on existing and anticipated primary production activities or rural industry activities when determining the location of the new urban/rural boundary;
- protects the efficient operation, maintenance, upgrading and development of nationally and regionally significant infrastructure; and
- limits, to the extent reasonably practical, the effects on operation, maintenance, upgrading and development of development infrastructure and additional infrastructure.

8.1.41. As discussed earlier in this evaluation, the project will not contribute to a well-functioning urban environment. The project is not consistent with the Spatial Plan and is not required to address a shortfall in housing provision. Given the fragmented nature of the project in a relatively remote rural area that is not served with infrastructure or public transport, it does not achieve a consolidated or well-designed development around an existing urban area and represents a sporadic and inefficient pattern of settlement. The project is not integrated with existing public infrastructure and is likely to give rise to significant adverse effects on the operation of State Highway 6. It has not demonstrated that it will manage adverse effects on outstanding natural landscapes, which require protection under the ORPS. The project does not avoid development on highly productive land as defined in the NPS-HPL and does not consider the impact on existing land uses in the Gibbston Character Zone, in particular its effects on the ongoing viability and use of the zone for viticulture. The project is likely to have significant impacts on the operation of the State Highway network which is nationally significant infrastructure. Finally, the project will likely result in reverse sensitivity effects on the Victoria Flats Landfill, which is defined as additional infrastructure under the NPS-I.

8.1.42. Overall, the project is considered to be directly contrary to the provisions of the ORPS which manage urban development. This is a matter for consideration by the Minister under section 22(2)(a)(x).

Queenstown Lakes District Plan

8.1.43. The development areas are variously located in the Rural Zone, GCZ and WBRAZ, as well as being located in an ONL, with an ONF and wahi tupuna area along the Kawarau River. Four of the sites are identified for urban development (Mania – Glenlee/Glenroy, Taiheke – Riverside, Karapuke – Drystone, and Kurae – Waitiri), with Ara Tihi – Eastburn proposed as rural residential.

8.1.44. The PDP has a very strong planning framework that seeks to avoid urban development outside of the Urban Growth Boundary, and avoid urban development in Gibbston Valley. The key Chapter 3 Strategic Objectives and Policies of the PDP are:

3.2.2 Urban growth is managed in a strategic and integrated manner. (addresses Issue 2)

3.2.2.1 Urban development occurs in a logical manner so as to:

- a. promote a compact, well designed and integrated urban form;*

- b. build on historical urban settlement patterns;*
- c. achieve a built environment that provides desirable, healthy and safe places to live, work and play;*
- d. minimise the natural hazard risk, taking into account the predicted effects of climate change;*
- e. protect the District's rural landscapes from sporadic and sprawling urban development;*
- f. ensure a mix of housing opportunities including access to housing that is more affordable for residents to live in;*
- g. contain a high quality network of open spaces and community facilities; and*
- h. be integrated with existing, and proposed infrastructure and appropriately manage effects on that infrastructure.*

3.3.14 Apply Urban Growth Boundaries (UGBs) around the urban areas in the Wakatipu Basin (including Queenstown, Frankton, Jack's Point and Arrowtown), Wānaka and where required around other settlements. (relevant to SO 3.2.2, 3.2.2.1)

3.3.15 Apply provisions that enable urban development within the UGBs and avoid urban development outside of the UGBs. (relevant to SO 3.2.1, 3.2.1.8, 3.2.2.1, 3.2.3.2, 3.2.5, 3.2.5.1 -3.2.5.7)

8.1.45. Turning to Chapter 4, Objective 4.2.1 seeks to ensure:

Urban Growth Boundaries used as a tool to manage the growth of urban areas within distinct and defensible urban edges.

8.1.46. Policy 4.2.1.1 requires the PDP to:

Define Urban Growth Boundaries, where required, to identify the areas that are available for the growth of urban settlements.

8.1.47. Policy 4.2.1.2 seeks to:

Focus urban development primarily on land within and adjacent to the existing larger urban areas and to a lesser extent, within and adjacent to smaller urban towns and rural settlements.

8.1.48. Policy 4.2.1.4 requires the Council to:

Ensure Urban Growth Boundaries encompass, at a minimum, sufficient feasible development capacity and urban opportunities consistent with:

- a. the anticipated medium term demand for housing and business land within the District assuming a mix of housing densities and form;*
- b. ensuring the ongoing availability of a competitive land supply for urban purposes;*

- c. *the constraints on development of the land such as its topography, its ecological, heritage, cultural or landscape significance; or the risk of natural hazards limiting the ability of the land to accommodate growth;*
- d. *the need to make provision for the location and efficient operation of infrastructure, commercial and industrial uses, and a range of community activities and facilities;*
- e. *a compact and efficient urban form;*
- f. *avoiding sporadic urban development in rural areas;*
- g. *minimising the loss of the productive potential and soil resource of rural land; and*
- h. *A future development strategy for the District that is prepared in accordance with the National Policy Statement on Urban Development Capacity.*

8.1.49. Objective 4.2.2 B seeks:

Objective - Urban development within Urban Growth Boundaries that maintains and enhances the environment and rural amenity and protects Outstanding Natural Landscapes and Outstanding Natural Features, and areas supporting significant indigenous flora and fauna

8.1.50. Turning to Chapter 4, Objective 4.2.1 seeks to ensure:

Urban Growth Boundaries used as a tool to manage the growth of urban areas within distinct and defensible urban edges.

8.1.51. Policy 4.2.1.1 requires the PDP to:

Define Urban Growth Boundaries, where required, to identify the areas that are available for the growth of urban settlements.

8.1.52. Policy 4.2.1.2 seeks to:

Focus urban development primarily on land within and adjacent to the existing larger urban areas and to a lesser extent, within and adjacent to smaller urban towns and rural settlements.

8.1.53. Policy 4.2.1.4 requires the Council to:

Ensure Urban Growth Boundaries encompass, at a minimum, sufficient feasible development capacity and urban opportunities consistent with:

- i. *the anticipated medium term demand for housing and business land within the District assuming a mix of housing densities and form;*
- j. *ensuring the ongoing availability of a competitive land supply for urban purposes;*
- k. *the constraints on development of the land such as its topography, its ecological, heritage, cultural or landscape significance; or the risk of natural hazards limiting the ability of the land to accommodate growth;*
- l. *the need to make provision for the location and efficient operation of infrastructure, commercial and industrial uses, and a range of community activities and facilities;*
- m. *a compact and efficient urban form;*
- n. *avoiding sporadic urban development in rural areas;*
- o. *minimising the loss of the productive potential and soil resource of rural land; and*
- p. *A future development strategy for the District that is prepared in accordance with the National Policy Statement on Urban Development Capacity.*

8.1.54. Objective 4.2.2 B seeks:

Objective - Urban development within Urban Growth Boundaries that maintains and enhances the environment and rural amenity and protects Outstanding Natural Landscapes and Outstanding Natural Features, and areas supporting significant indigenous flora and fauna

- 8.1.55. The project is directly contrary to all of the above strategic objectives and policies, by providing for urban development in the GCZ and in the Rural Zone. In my opinion, the referral application represents sporadic and sprawling development in the rural area, lacks distinct and defensible edges that are expected for urban areas, and is neither compact or well-designed. This is demonstrated in the physical separation of the development sites, bisecting of the main development area by State Highway 6 (requiring a pedestrian underpass), and insufficient work done to determine appropriate traffic intersections. The project does not consolidate around existing larger urban areas, nor is it within or adjacent to smaller urban towns or rural settlements. In addition, insufficient evidence has been provided that the development will protect the ONLs and ONFs identified in the planning maps or appropriately manage natural hazards.
- 8.1.56. Chapter 6 policies set out specific directions for managing activities in the Rural Zone and the Gibbston Character Zone (amongst other zones such as the Rural Residential Zone and the Rural Lifestyle Zone). These seek to avoid urban development and subdivision to urban densities in the rural zones, avoid unnecessary degradation of views of the night sky and of landscape character, including the sense of remoteness where it is an important part of that character, enable continuation of the contribution viticulture in the Gibbston Character Zone makes to the District's

landscape character, and ensure subdivision and development does not compromise the landscape values of ONFs or ONLs.

- 8.1.57. The referral application does not achieve these policies, as it provides for urban activities which they specifically direct to avoid, and there is insufficient landscape assessment to determine whether the project compromises the landscape values of ONFs or ONLs. In my opinion, should the Minister be minded to refer the project, further information should be sought on the impact each of the stages will have on ONL values, and address the information gaps set out in the landscape peer review. This will enable the Minister to consider the extent to which the project is consistent (or otherwise) with the PDP as provided for under section 22(1)(a)(x).

Queenstown Lakes Spatial Plan

- 8.1.58. The Queenstown Lakes Spatial Plan seeks a consolidated approach to growth, and identifies those areas that are rural, protected or identified for open space or future urban use. Given that the sites, with the exception of Eastburn are located in an ONL, the Spatial Plan identifies the Gibbston Valley as an area to be protected from urban development. This is shown in the Spatial Elements mapping in the plan, as shown in Figure 2 below.

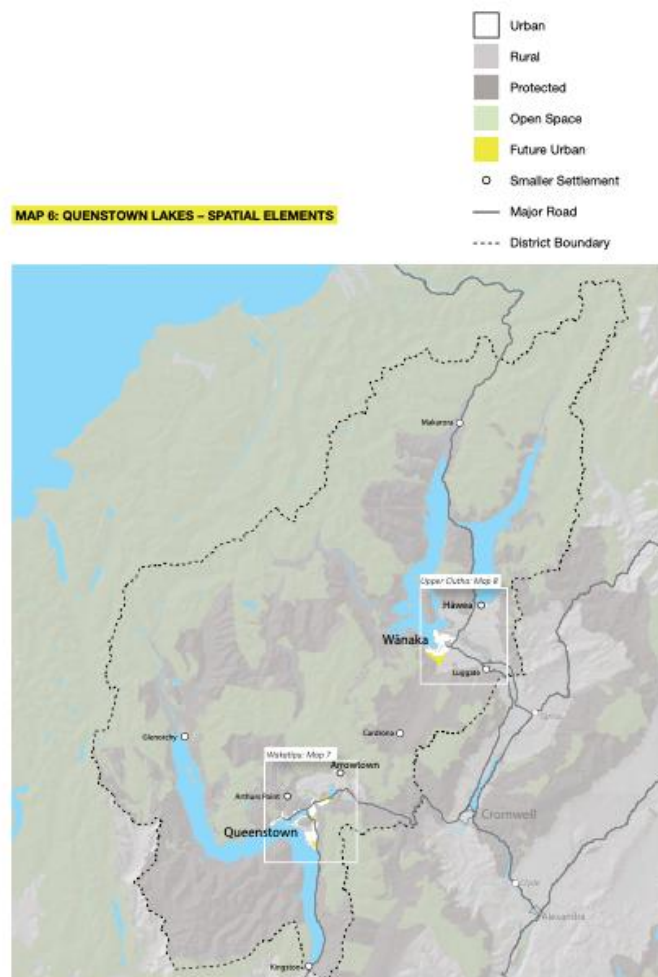


Figure 2. Queenstown Lakes Spatial Elements

- 8.1.59. Given the project provides for urban development in an area identified as protected, the project is directly contrary to the Spatial Plan. This is a matter for consideration by the Minister under section 22(2)(a)(x).

9. Summary

- 9.1. The application material is considered to be significantly deficient in terms of providing evidence that the project will achieve the Minister's criteria. In particular, as a staged project, the applicant has not demonstrated that each stage will provide significant regional or national benefits.
- 9.2. In my opinion, the project represents a poor, fragmented urban form, in an inappropriate location, and is very likely to lead to significant adverse effects.
- 9.3. Insufficient information has been provided to assess the effects of the project in relation to the extent the project provides for a well-functioning urban environments, whether it meets a housing need and will deliver affordable housing, the transport network, appropriateness of the school site, natural hazards, effects on the Kawareau Gibbston Dark Sky Park, infrastructure and its delivery, reverse sensitivity on the Victoria Flats Landfill, impacts on the viticultural values of the Gibbston Character Zone, social impacts of the project, landscape, provision of open space, and the contribution of the project to greenhouse gas emission reduction.
- 9.4. I consider these to be significant matters that need to be addressed before the project is considered for referral, to ensure that the project meets the criteria set out for the Minister's consideration. In my opinion, leaving these matters to be addressed in detailed design as part of a substantive application is too late, and risks the admission of the project to the fast-track approvals process with insufficient information to meet the criteria set out for the Minister.

Strategic Growth Memo

To:	QLDC Resource Consent Team
From:	Strategic Growth Manager, Anita Vanstone and Senior Strategic Planner Liz Simpson
Date:	Thursday, 16 July 2026
cc:	Pennie Pearce (General Manager Strategy & Policy)
Subject:	Fast-track Approvals Act 2024 Oaks Living Ltd, Waitiri Project Fast Track Referral Application FTRA2603) Strategy and Policy - section 17 comment

1. Executive Summary

- 1.1 This memorandum provides Strategic Growths input on the Oaks Living Ltd, Waitiri fast-track referral application. It assesses the proposal against the relevant referral criteria, with a focus on strategic alignment, housing need and affordability. It also discusses economic benefits, infrastructure capacity, natural hazards and cumulative effects, noting these are all addressed in detail in the relevant technical memos.
- 1.2 Strategic Growth does not support the proposal proceeding on the information currently available. While the proposal may provide additional housing supply and economic activity, it has not demonstrated that it meets the relevant referral criteria of the Fast-Track Approvals Act 2024 (FTAA). In particular:
 - a) While the proposal will increase housing supply, it has not shown that the housing supply is needed to meet identified housing demand (both typology and location in the Gibbston Valley / Cardrona Range), addresses the specific affordable housing needs of the Queenstown Lakes community that the Economic Assessment claims it is targeted at addressing, or that it would contribute to a well-functioning urban environment for the purposes of section 22(2)(a)(iii). The proposal has not demonstrated that additional unplanned capacity in this location is required to meet district-wide housing demand;
 - b) the proposal has not demonstrated a significant net regional economic benefit once transport dis-benefits, infrastructure costs, opportunity costs and cumulative effects are considered, for the purposes of section 22(2)(a)(iv). This is considered a significant shortfall of the application and could result in significant adverse economic impacts to the Queenstown Lakes community;
 - c) the proposal has not demonstrated that it would support the continued functioning of regionally significant infrastructure, particularly the wider Whakatipu transport network, for the purposes of section 22(2)(a)(ii);
 - d) the proposal has not demonstrated that natural hazard risks can be appropriately avoided, reduced or managed, including any residual risk transferred to Council, infrastructure providers or the wider community (as per the requirements of the National Policy Statement – Natural Hazards (NPS-NH)). Further assessment is

required before any resilience or natural hazard benefits can be relied on under section 22(2)(a)(viii).

- e) is inconsistent with local planning documents, including the Queenstown Lakes Spatial Plan and Proposed District Plan, for the purposes of section 22(2)(a)(x).

1.3 The applicant should be directed to provide the following information before a decision is made on the referral to address the following:

- a) confirmation of the proposal's cumulative effects on the wider Whakatipu transport network, including SH6, SH6A, Frankton, public transport reliability, freight movement and access to employment;
- b) confirmation of the transport mitigation, demand management measures, public transport improvements and network upgrades required to support the proposal;
- c) confirmation of how those interventions would be funded, staged and delivered, including any developer contribution or agreement required;
- d) confirmation from the Ministry of Education on school capacity, catchment implications, funding, timing and staging for both primary and secondary school provision;
- e) confirmation that the proposal would not undermine, delay or divert planned investment in identified Spatial Plan priority development areas, or result in inefficient infrastructure sequencing;
- f) confirmation that natural hazard risks have been fully assessed and can be avoided, reduced or managed without transferring unacceptable residual risk to Council, future residents, infrastructure providers or the wider community; and
- g) confirmation of an affordable housing mechanism, such as a contribution to a registered Community Housing Provider or equivalent direct delivery arrangement, if affordable housing benefits are to be relied on.

1.4 Without these matters being resolved, the proposal has not demonstrated that it can be accommodated without worsening cumulative network effects, increasing pressure on the Whakatipu transport system, or undermining planned investment in identified priority development areas. These matters are directly relevant to the Minister's referral assessment because they affect whether the proposal is likely to deliver significant regional benefits and is appropriate to enter the fast-track pathway. If a referral is made, they are also matters that the Minister should stipulate the Applicant address in a substantive application.

2. Strategic Context

National Policy Statement for Urban Development

2.1 The National Policy Statement on Urban Development (NPSUD) requires planning decisions to contribute to well-functioning urban environments. This means more than simply providing more housing. It also means ensuring housing is in the right locations, offers different types and prices, and has good access to jobs, services, open space, public transport and active transport. It also requires consideration of business land, emissions reduction, efficient land markets, and resilience to climate change. The proposal has not demonstrated that it would support a well-functioning urban environment, because key questions about location, access, affordability,

infrastructure and resilience remain unresolved at a wider network scale, which is inconsistent with section 22(2)(a)(iii).

- 2.2 The claimed economic benefits and additional housing supply, need to be further tested against whether the proposal is needed in the proposed locations, aligns with strategic planning, can be supported by existing and planned infrastructure, and would deliver a net regional benefit. Based on the information available, the proposal has not demonstrated that these outcomes would be achieved. These relevant planning outcomes and documents are discussed in detail below.

Queenstown Lakes Spatial Plan 2021

- 2.3 The proposal is not located within any of the six planned growth areas or future urban areas identified in the Queenstown Lakes Spatial Plan 2021 (the Spatial Plan), the areas are not even close to or near those growth areas. The Spatial Plan was a key output of the Grow Well Whaiora partnership between central government¹, Kāi Tahu, Otago Regional Council and QLDC to co-ordinate how and where the district grows. Its purpose is to align future urban growth with infrastructure planning (including social), public transport, and the efficient use of existing and planned networks. By introducing significant residential growth outside this agreed framework, the proposal does not meet section 22(2)(a)(i) as a priority project identified in a central government, local government or sector plan or strategy. It is also not consistent with local or regional planning documents for the purposes of section 22(2)(a)(x).
- 2.4 The Spatial Plan recognises housing affordability as a critical growth challenge. It seeks to improve affordability through consolidated urban growth, increased housing supply, greater housing diversity, infrastructure investment, and a strategic commitment to provide more affordable housing options. It also provides the long-term framework for later initiatives, including the Joint Housing Action Plan, and partnerships with the Queenstown Lakes Community Housing Trust. The proposal does not include an affordable housing mechanism or provide for perpetual affordable housing. This is discussed further in paragraphs 2.12 - 2.15 below.

Proposed District Plan

- 2.5 The five locations included in the proposal are not contiguous and are zoned a mixture of Rural Zone, Wakatipu Basin Rural Amenity Zone and Gibbston Character Zone in the Proposed District Plan.
- 2.6 The Wakatipu Basin Rural Amenity Zone exists to maintain and enhance the Basin's open rural landscape and amenity values by tightly managing subdivision and development, allowing only development that can be absorbed without eroding the character of the Basin. The Gibbston Character Zone exists to ensure Gibbston Valley remains a distinctive wine-growing landscape rather than gradually becoming a rural residential or urban area. The purpose of the Rural Zone is to enable rural production

¹ Key Central Government Partners: Department of Internal Affairs, Ministry of Housing and Urban Development, NZTA, Kainga Ora and Ministry of Education.

and other rural activities while protecting the district's landscape, environmental and rural amenity values and preventing unplanned urbanisation of rural land.

- 2.7 The proposed development is considered to be contrary to the Proposed District Plan. The proposal is therefore not supported under section 22(2)(a)(x), as it would enable substantial residential development in locations that have not been identified, assessed or provided for through the district's spatial planning and zoning framework.

Queenstown Lakes Housing and Business Capacity Assessment 2025

- 2.8 The Queenstown Lakes Housing and Business Capacity Assessment 2025 (HBA) is the latest district-wide assessment of housing and business land supply against expected demand. It uses a high-growth scenario and identifies a need for about 27,100 additional homes over the next 30 years, including around 9,100 homes by 2033 and a further 18,000 by 2053. The HBA highlights there is significant plan enabled capacity to enable a range of developments and housing choice.
- 2.9 The HBA finds that the district has substantial plan-enabled housing capacity overall. The District Plan and Queenstown Lakes Spatial Plan 2021 (the Spatial Plan) provide for approximately 108,000 additional homes, compared with projected demand of around 24,000 homes to 2055. QLDC has used all the planning tools available to provide a significant pipeline of housing capacity and housing choice.
- 2.10 The HBA identifies a short-term water infrastructure capacity shortfall of approximately 1,000 dwellings in the Whakatipu. It also identifies business land capacity constraints linked to water infrastructure. QLDC is already responding to these constraints through completed, planned and underway infrastructure work. This includes the Queenstown Lakes Water Services Delivery Plan 2025, which provides for \$715.7 million of investment in growth infrastructure, including major schemes within Spatial Plan priority development areas.
- 2.11 As around 90% to 95% of growth occurs in greenfield areas, infrastructure sequencing and funding remain critical. While significant capacity will be unlocked by 2034, delivery timeframes do not always align with individual development programmes. QLDC is actively working with developers in priority development areas (Te Pūtahi and Te Tapuae) to bring forward growth in the right locations, including through developer agreements that deliver necessary local infrastructure with clear stagings and enable QLDC to co-ordinate upgrades and network optimisation.
- 2.12 QLDC's further assessment also indicates that the HBA model understates actual development capacity because it applies a high-level methodology to a complex, interconnected infrastructure network where many urban areas share trunk mains, reservoirs, pump stations and treatment plants. A review of Long-Term Plan investment confirms that the committed infrastructure programme is expected to

support around 23,500 additional homes by 2034, compared with 17,000 additional dwellings identified through the HBA over the same period.

- 2.13 Current development activity also remains strong. Queenstown Lakes issues more building consents per 1,000 residents than any other council in New Zealand, and more than 1,700 residential building consents were issued last year. In total terms, Queenstown Lakes' residential consent numbers are exceeded only by Auckland and Christchurch, both substantially larger urban areas. This indicates that, while the HBA identifies a modelled capacity shortfall for the short-term, infrastructure constraints are not currently preventing substantial housing delivery across the district.
- 2.14 This work is being progressed with the Grow Well Whaiora partners so that transport, schools, health services and other infrastructure are planned and funded at the right time. The HBA reinforces that the key issue is not simply how much housing capacity exists, but whether growth can be serviced, funded and delivered in the right locations and at the right time.
- 2.15 The HBA does not support the conclusion that additional unplanned housing capacity is needed in the Crown Range or Gibbston Valley to meet district-wide demand. Rather it highlights the importance of aligning growth with infrastructure investment, transport planning, business land needs and the wider spatial planning framework.

Queenstown Lakes Joint Housing Action Plan 2023-2028

- 2.16 The Queenstown Lakes Joint Housing Action Plan 2023 (JHAP), is another output of the Grow Well Whaiora Partnership. It was developed in partnership with Ministry of Housing Urban Development, Kainga Ora, Queenstown Lakes Community Housing Trust (QLCHT), and QLDC. The JHAP recognises there is a significant affordable housing need in Queenstown Lakes, and that the market is unlikely to deliver affordable housing on its own. This is evident through the Queenstown Lakes Community Housing Trust waiting list that now exceeds 1,600 households.
- 2.17 The proposal has indicated that more affordable housing will be achieved via the higher density lots. Out of the 1115 lots, only 167 are proposed to be high density (250m²) and 209 lots medium density (500m²). These are also considered to be more aligned to the medium density and suburban residential zones of the PDP. Additional supply, including higher-density housing, does not in itself deliver an affordable housing outcome. While the proposal includes some medium density areas, a substantial proportion is directed to low-density, large-lot, rural living and premium lifestyle housing. There is no evidence that the proposal will result in any affordable housing, and no mechanism has been proposed to secure any of the dwellings for perpetual affordable housing. This is a specific housing need of the Queenstown Lakes community. Reliance on additional housing supply alone is insufficient, particularly in a market where high levels of consenting and development have not materially improved affordability outcomes.
- 2.19 In the absence of a specific affordable housing mechanism, such as a contribution to a registered Community Housing Provider, the proposal may increase nominal housing supply but would not secure perpetual affordable housing. On the information available, it has not demonstrated that it would meet the housing needs of Queenstown Lakes or clearly satisfy section 22(2)(a)(iii) where housing need is relied on as a referral benefit.

3 Other matters

Economic Matters

- 3.1 The Economic Impact Assessment prepared by Property Economics estimates that the proposal could generate approximately \$2.17 billion in development expenditure, contribute approximately \$1.11 billion in regional GDP, using an 8% net present value, and support approximately 10,870 full-time equivalent years of employment over the development period. It also identifies qualitative benefits, including increased housing supply, greater housing choice, economic activity and tourism growth.
- 3.2 However, the economic assessment accompanying the referral application does not adequately demonstrate whether those benefits would be net additional, or whether they would outweigh the associated economic costs, trade-offs and infrastructure implications. In particular, further assessment is required to understand the proposal's relationship to the district's existing housing capacity and development pipeline, the suitability of the proposed housing mix and location to meet identified housing needs, the implications of delivering growth across five geographically separate precincts, and the potential opportunity costs associated with urban development in the Gibbston Valley. The report itself acknowledges that it is not a full economic cost-benefit assessment.
- 3.3 In addition, the application also does not address the potential economic consequences of reverse sensitivity effects on the Victoria Flats Landfill, which is an important regional infrastructure asset.
- 3.4 Overall, while the proposal may generate substantial economic activity and additional housing supply, the extent to which it delivers significant net regional or national economic benefits is not fully established on the information provided. These matters are relevant to the Minister's consideration of whether the project should be referred under sections 21 and 22 of the Fast-track Approvals Act 2024. This is discussed in detail within the Market Economics (ME) Technical Memo.

Natural Hazards

- 3.5 The National Policy Statement for Natural Hazards 2025 (NPS-NH) is directly relevant to the assessment of this proposal. Its objective is to ensure that natural hazard risk to people and property associated with subdivision, use and development is managed using a risk-based and proportionate approach. As a result, the application should be supported by a robust natural hazards assessment that considers the full range of relevant hazards for the site and surrounding area, including flooding, liquefaction, land instability, seismic risk, alluvial fan risk and stormwater-related hazards. The assessment should focus on the level of risk to people and property, including future residents, visitors, infrastructure and emergency access, rather than simply whether hazards can be engineered around on-site. Until that assessment is provided, the proposal does not demonstrate that it meets section 22(2)(a)(viii) to the extent that climate adaptation, natural hazard risk reduction or resilience benefits are relied on.
- 3.6 Given the scale of the proposal and the cumulative growth pressures across the Whakatipu Basin, a more comprehensive natural hazards assessment that is consistent with the requirements of the NPS-NH is required. That assessment should be based on the best available information, address long-term and residual risk, and demonstrate that risks to people, property, infrastructure and emergency access can be appropriately avoided, reduced or managed. In the absence of that assessment, it cannot be concluded that the proposal would avoid the transfer of unacceptable

residual risk to Council, future residents, infrastructure providers or the wider community. These unresolved matters may materially affect the weight to be given to the claimed benefits of the proposal and are relevant to the overall referral assessment.

Critical constraints – Transport, schools and cumulative effects

The State Highway Network

- 3.7 The relevant roading network is the wider Whakatipu transport system, centred on the state highway corridor through to Frankton and the connections between Te Pūtahi Eastern Corridor (Ladies Mile, Lake Hayes Estate, Shotover Country), Te Kirikiri Frankton, Queenstown Town Centre and Te Tapuae Southern Corridor.
- 3.8 In practice, this means additional trips from the proposal will add pressure not only at the site access points, but also across already constrained intersections and corridors, including the Ladies Mile corridor, SH6/SH6A, the Frankton Road corridor, and the wider Frankton Flats network. These routes perform a strategic function for residents, workers, freight, public transport and visitors, so the effects need to be considered at a network scale rather than on a site-by-site basis.
- 3.9 The state highway network is already under significant pressure, and this is particularly important for Frankton as the district's main employment area and a key access point for the wider Whakatipu Basin. Additional traffic moving into and through Frankton (likely the key destination of residents as the major hub for business, employment, shopping, healthcare, schooling and social infrastructure) will increase pressure on already constrained intersections and corridors, with direct effects on access to jobs, public transport reliability, freight movement and business activity. This is compounded by the fact that growth has outpaced earlier assumptions, and current transport planning does not yet account for fast-track development or additional housing capacity enabled through intensification.
- 3.10 The 2024 Queenstown Public Transport Business Case and the 2020 NZTA Queenstown Business Case, both of which were developed in partnership between NZTA, Otago Regional Council (ORC) and QLDC, highlight that the scale of the problem within the Whakatipu roading network is significant. Modelling indicates that by 2028, average conditions will be similar to current peak travel times e.g. travel times between Lake Hayes Estate and Queenstown are projected to regularly exceed 60 minutes by 2028, a journey that should take 15 minutes.
- 3.11 Without investment, transport constraints will continue to affect residents, freight, visitors and economic performance. Strategic transport planning work for the Whakatipu Basin identifies significant network pressures and the need for coordinated investment in public transport, state highway infrastructure and travel demand management. Ascari notes that development-induced traffic growth should be considered as both a transport and economic issue. For the proposal, the indicative assessment undertaken for QLDC suggests the additional traffic generated by the development could result in transport-related dis-benefits and wider economic impacts that should be considered alongside any claimed employment and GDP benefits when assessing the proposal's overall net regional benefit.
- 3.12 This reinforces the need for a funded response across NZTA, QLDC, ORC and developers that addresses the cumulative effects of growth on the wider Whakatipu transport system. An integrated response is required across transport infrastructure, public transport service improvements and travel demand measures. On-road measures alone will not be sufficient. While the applicant proposes private on-site infrastructure, the key unresolved issue is whether the wider state highway, public

transport and social infrastructure networks can absorb the additional demand without compromising planned investment in priority development areas. Until this is resolved, the proposal does not demonstrate that fast-tracking would appropriately facilitate the project under section 22(1)(b)(i), or that it would support the continued functioning of regionally significant infrastructure under section 22(2)(a)(ii).

NZTA is refreshing its Strategic Network Plan for the Whakatipu Basin

- 3.13 NZTA's Strategic Network Plan is critical in confirming the next transport response, including corridor function, investment priorities, and the relationship between further roading expansion as well as bus-based and offline public transport options.
- 3.14 That work tests cumulative growth scenarios, including fast-track development, and helps identify network tipping points, staging requirements and investment triggers. It is anticipated to be completed by late 2026 and should inform the assessment of this proposal, including the cumulative transport effects, the mitigation required, and the necessary staging and funding triggers for any approval.

School infrastructure

- 3.15 With cumulative growth now expected to exceed the secondary school trigger of 1,000 homes on Te Pūtahi Ladies Mile, Ministry of Education funding and delivery for both school provision and staging needs to be confirmed. This is particularly important given existing pressure on local school capacity and the scale of consented and proposed development within Te Pūtahi Ladies Mile. That area is located along the same State Highway 6 corridor before both the Shotover Bridge, and Frankton, the district's main employment area and the current location of the district's only Ministry of Education secondary school.
- 3.16 Te Pūtahi Ladies Mile is already expected to generate significant demand for both primary and secondary school provision. The Structure Plan identifies the need for a new high school once approximately 1,000 dwellings are delivered, and 500 dwellings have already been approved through the Flints Park fast-track process, with 1100 dwellings also proposed through the Simplicity fast-track (subject to a successful referral decision) and 1,210 dwellings and a mix of uses proposed through Ridgeburn fast-track (live substantive application). The Ministry of Education has secured a site for a primary school on Te Pūtahi Ladies Mile, but funding and timing for delivery remain unresolved. Shotover Primary School is also approaching capacity. Funding for the purchase of land for an additional High School has been confirmed, but the location is still unresolved.
- 3.17 Although the proposal is located either within Gibbston Valley or on the Crown Range, its residents would still contribute to wider Whakatipu school demand and may place additional pressure on school provision already being tested by planned and consented growth. This reinforces the need for Ministry of Education confirmation on school capacity, timing, funding and catchment implications before any significant additional residential growth is approved.

Fast track consenting in the Whakatipu Basin will result in cumulative adverse effects

- 3.18 QLDC recently raised similar cumulative effects concerns in relation to the Simplicity Living Te Pūtahi Ladies Mile fast-track referral. That proposal is located within a planned Priority Development Area and is broadly aligned with the Spatial Plan, yet officers still identified transport capacity and school provision as critical unresolved constraints. In particular, the concern was that further housing delivery should not proceed ahead of confirmed, funded solutions for the state highway network, public transport and school infrastructure. This is also relevant to this Oaks Living proposal because it would add further demand to the same wider Whakatipu network, including

SH6, SH6A, Frankton, public transport services and school catchments, but in locations that have not been identified or tested through the Spatial Plan or Proposed District Plan.

- 3.19 Queenstown Lakes is disproportionately affected by the fast-track consent process despite the PDP and the Spatial Plan enabling and identifying more than 108,000 additional homes, far exceeding the projected demand for 30,000 additional homes by 2057. In that context, fast-track proposals in the Whakatipu are not needed to meet projected housing demand. Despite this, more than 11,000 homes are proposed via fast tracks in the Whakatipu Basin alone.
- 3.20 In addition to these housing developments, there are also a number of Fast Track tourism proposals that would significantly increase visitor numbers and place further pressure on the transport network, including the Remarkables ski field expansion expected to require movements of up to 2,000 additional people per day at peak times. With around 17,000 existing homes already in the Whakatipu, the combined scale of residential and tourism-related fast-track development is substantial and highlights the need to take a cumulative, network-wide approach to assessing applications. Please refer to **Attachment A**, which highlights the number of fast-track proposals within the Whakatipu Basin.
- 3.21 Fast-track applications would add materially to growth pressure in the Whakatipu Basin, including further demand on transport and social infrastructure. This reinforces the need to assess cumulative effects at a network scale.
- 3.22 While there has been active engagement between NZTA, ORC, QLDC and MoE through City and Regional Deal negotiations, the cumulative implications for the state highway network, public transport, and school provision remain unresolved. Until those matters are resolved, the proposal has not demonstrated that it would support the continued functioning of regionally significant infrastructure under section 22(2)(a)(ii).

4 Overall Recommendation

- 4.1 We do not support the proposal proceeding on the information currently available. While the proposal may provide additional housing supply and economic activity, it would enable substantial residential development outside the locations identified and tested through the Proposed District Plan and Spatial Plan, in a context where the district already has significant plan-enabled housing capacity.
- 4.2 The proposal has not demonstrated that it is required to meet district-wide housing demand, that it would deliver affordable housing outcomes for low to moderate-income households, support an integrated and well-functioning urban environment, or that the claimed economic benefits outweigh the likely transport, infrastructure and wider cumulative dis-benefits. Overall, the proposal does not clearly meet section 22(2)(a)(iii), only partly addresses section 22(2)(a)(iv), has not demonstrated consistency with section 22(2)(a)(viii), and is inconsistent with section 22(2)(a)(x).
- 4.3 The cumulative impact on the wider Whakatipu transport and social infrastructure networks are critical unresolved issues and are not addressed by the provision of on-site private infrastructure alone. Any approval would need to be supported by a coordinated and funded response, with clear staging triggers and delivery commitments across NZTA, QLDC, ORC, developers and the Ministry of Education. This should include:

- a) confirmation of the proposal's cumulative effects on the wider Whakatipu transport network, including SH6, SH6A, Frankton, public transport reliability, freight movement and access to employment;
- b) confirmation of the transport mitigation, demand management measures, public transport improvements and network upgrades required to support the proposal;
- c) confirmation of how those interventions would be funded, staged and delivered, including any developer contribution or agreement required;
- d) confirmation from the Ministry of Education on school capacity, catchment implications, funding, timing and staging for both primary and secondary school provision;
- e) confirmation that the proposal would not undermine, delay or divert planned investment in identified Spatial Plan priority development areas, or result in inefficient infrastructure sequencing;
- f) confirmation that natural hazard risks have been fully assessed and can be avoided, reduced or managed without transferring unacceptable residual risk to Council, future residents, infrastructure providers or the wider community; and
- g) confirmation of an affordable housing mechanism, such as a contribution to a registered Community Housing Provider or equivalent direct delivery arrangement, if affordable housing benefits are to be relied on.

4.4 Until these matters are satisfactorily resolved, Strategic Growth recommends that limited weight be afforded to the claimed housing supply and economic benefits of the proposal. The unresolved cumulative effects on the Whakatipu transport network, school infrastructure, strategic planning framework and natural hazard risk profile should be treated as material considerations in determining whether the proposal is appropriate for referral into the fast-track pathway. Particular regard should be had to whether the proposal would further constrain the operation of the Whakatipu transport network or undermine the sequencing and delivery of planned investment in identified Spatial Plan priority development areas.

ENDS

Attachment A Cumulative Effects of Fast Track Consents

Technical Memo

To:	QLDC Resource Consent Team
From:	Robert Galvin (Programme Manager Growth Areas, Property & Infrastructure)
Date:	Thursday, 16 July 2026
Subject:	Fast-track Approvals Act 2024 Waitiri Project: Referral Application (FTRA2603) Transport and Water Infrastructure Technical Commentary – s17 comment

1. Executive Summary

- 1.1. This memorandum provides Property and Infrastructure (P&I) input to inform Queenstown Lakes District Council's (**QLDC or Council**) comments on the Waitiri Project Fast-track Referral Application (**Project**), as invited under section 17 of the Fast-track Approvals Act 2024 (**FTAA**).
- 1.2. The Project comprises residential development across multiple titles supported by onsite and private infrastructure solutions for water supply, wastewater, and stormwater servicing, along with a transport network connecting to the wider State Highway network.
- 1.3. In respect of infrastructure servicing, the proposed three waters approach is generally workable in principle but relies heavily on private systems for wastewater and water supply. This introduces ongoing operational dependency and risk that must be addressed through design, consenting, and governance arrangements.
- 1.4. Stormwater management is proposed to be addressed through onsite systems. Based on the information provided, there appears to be sufficient land available to accommodate stormwater management measures. However, further information, site specific assessment, confirmation of system performance during failure scenarios, and ongoing maintenance arrangements are required.
- 1.5. Significant transport issues remain. The Project is located within a constrained and unplanned part of the Whakatipu transport network that is already experiencing pressure. The Transport Assessment (TA) relies on assumptions regarding trip generation and network performance that are not adequately supported by the current transport context, particularly in the absence of confirmed public transport services and given the likely reliance on private vehicle travel.
- 1.6. While the TA provides a detailed assessment of site access and adjacent intersections, it does not adequately assess how the development interacts with the wider transport network. Wider network impacts, cumulative effects on the State Highway 6 (SH6) corridor, and the resulting economic costs have not been sufficiently addressed. The need for a broader and more strategic assessment of transport effects is reinforced by the Stantec peer review report that also forms part of QLDC's s17 comment, which similarly identifies the importance of considering wider network implications associated with development in the Gibbston area.
- 1.7. Overall, while the three waters servicing strategy can potentially be resolved through detailed design and regulatory controls, significant transport concerns remain. Further assessment is required to demonstrate that the Project can be

integrated into the wider transport network and proceed without creating unacceptable long-term transport, infrastructure, and land use effects.

2. Qualifications and Experience

- 2.1. **Robert Galvin** is the primary author of this report. Robert is the Programme Manager (Growth Areas) in the Strategy and Infrastructure Planning Team within the Property & Infrastructure Department at QLDC. His role involves coordinating growth-related planning processes and integrating multidisciplinary inputs across Council's strategic and infrastructure planning frameworks. He has extensive experience in infrastructure programme and project delivery, asset management, procurement, and facilities management, and holds an MBA and a Postgraduate Certificate in Business. He is also a Graduate of the City & Guilds Institute (GCGI) and a Chartered Member of Engineering New Zealand (CMEngNZ).
- 2.2. **Robert** has been assisted in preparing this report by the following:
- **Jeremy Martin** is the Senior Network Engineer (Transport) in the Strategy and Infrastructure Planning Team within the Property & Infrastructure Department at QLDC. He has 18 years' professional experience in civil engineering, transport, and roading infrastructure, working across Central Otago and the Queenstown Lakes District. He holds a New Zealand Diploma in Engineering from the Western Institute of Technology at Taranaki and is also a CMEngNZ (Eng.Tech). His responsibilities include providing strategic and technical oversight of the transport network, including integration with adjoining networks, and contributing to the assessment of transport impacts and infrastructure requirements associated with development proposals. Jeremy's contribution to this report relates to the strategic transport assessment, including network integration, cumulative transport effects, and wider transport planning considerations.
 - **Richard Powell** is the Infrastructure Development Engineering Manager at QLDC, a position he has held since 2019. He has 17 years' professional experience in civil engineering, including 15 years in the Queenstown Lakes District. His responsibilities include assessing how proposed developments can be serviced by existing and planned infrastructure, considering network capacity, known constraints, and scheduled upgrade works. He holds a degree in Land Planning and Development from the University of Otago. Richard's contribution to this report relates to the assessment of water supply, wastewater, and stormwater servicing matters.
 - **Monique Barnes** is a Senior Transport Engineer in the Property & Infrastructure Civil Engineering Team at QLDC, with 12 years' experience across the private and public engineering sectors. Her role includes providing technical assurance for transport projects across the district and ensuring alignment with Safe System principles. Her experience covers transport planning and design, road geometric design, multimodal infrastructure, integrated transport assessments, transport modelling, and Safe System Audits. She holds a BSc in Civil Engineering from the University of the Witwatersrand in South Africa. Monique's contribution to this report relates to the transport assessment, including transport modelling assumptions, intersection design, active modes, public transport, and Safe System considerations.
- 2.3. While this report relates to a referral application made under the Fast-track Approvals Act 2024 (FTAA), all technical authors confirm that they have read and agree to comply with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. The technical commentaries have been prepared in accordance with that Code. Unless stated otherwise, the opinions expressed are within the respective authors' areas of professional expertise, and no material facts have been omitted that might alter or detract from those opinions.

3. Introduction

- 3.1. This memorandum provides Property and Infrastructure (P&I) advice to inform Council's comments on the Waitiri Project Fast Track Referral Application under section 17 of the FTAA.
- 3.2. This memorandum covers key infrastructure matters within Council's remit, including transport and three waters servicing, based on material submitted by the applicant. Reverse sensitivity effects associated with the Victoria Flats Landfill are addressed separately in a dedicated technical memorandum.
- 3.3. This assessment considers whether the proposed servicing approach aligns with Council standards and can integrate with existing and planned networks.
- 3.4. Findings are based on the applicant's technical information, including transport and servicing reports, and identify areas requiring further information, assessment, design development, or resolution through subsequent approvals processes.
- 3.5. Focus areas include:
 - i) Transport assumptions, network integration, and cumulative effects.
 - ii) Feasibility and risks of private three waters systems.
 - iii) Provision for active modes and public transport.

4. Strategic Context

- 4.1. The Gibbston Valley area is experiencing ongoing development pressure within the wider Whakatipu Basin, including proposals enabled through the FTAA.
- 4.2. This growth increases demand on existing infrastructure networks, particularly the State Highway 6 corridor and associated intersections, which are already subject to congestion and reliability issues.
- 4.3. Development proposals in this location require integration with existing transport networks and provision for safe and functional access for all users. This includes appropriate connections to the State Highway network, active transport infrastructure, and consideration of future public transport access.
- 4.4. Infrastructure delivered as part of development must:
 - i) Be designed and constructed to QLDC and NZTA standards.
 - ii) Integrate with the existing transport network, including connections to SH6 and surrounding areas.
 - iii) Provide safe, connected, and all weather access for all transport modes, including walking, cycling, and public transport users.
 - iv) Not preclude or constrain future network upgrades or improvements.
 - v) Not transfer unfunded operational, maintenance, or renewal liabilities to Council.

5. Transport Commentary

- 5.1. This section reviews the applicant's Transport Assessment (TA) to confirm alignment with QLDC design standards and the strategic transport context. This role is distinct from the Stantec peer review, which provides an independent technical assessment of the TA.
- 5.2. This review considers both the site-specific transport effects identified within the TA and the extent to which the proposal responds to the wider Whakatipu transport environment. Attention has been given to the suitability of modelling assumptions,

the integration of the development with the existing network, and the adequacy of proposed mitigation measures.

5.3. Transport Network Effects

- i) The TA is primarily focused on site access, with limited integration of how the development interacts with the wider Whakatipu transport network.
- ii) The wider network, particularly SH6, is already constrained and experiencing congestion and reliability issues, and cannot accommodate further growth in this unplanned and relatively isolated location.
- iii) The TA does not demonstrate how additional traffic generated by the development will be accommodated within this constrained network or how wider network effects will be addressed.
- iv) The Stantec review of the applicant's TA similarly identified the need to consider transport effects beyond immediate site access and local intersections, noting the importance of understanding wider network implications associated with development in the Gibbston area.
- v) Details around the ultimate mix of activities within parts of the development remain uncertain at this stage. As part of any future Integrated Transport Assessment (ITA), consideration should be given to assessing a range of development scenarios, including different retail and commercial activities and varying gross floor areas, to understand the potential range of trip generation and resulting effects on the immediate and wider transport network.
- vi) Even if localised intersection upgrades are implemented, additional vehicle movements generated by the development will ultimately join existing queues on SH6 toward Frankton and Queenstown.
- vii) This will reinforce existing congestion and further constrain network performance along this corridor. Consideration should be given to how future intersection upgrades required along the corridor will be funded.

5.4. Trip Generation Assumptions

- i) The adopted vehicle trip generation rates for low density residential lots are based on Australian Transport for New South Wales (TfNSW) trip rate data and are not representative of the likely vehicle trip rates for the site location.
- ii) Recent traffic surveys undertaken in Queenstown for the Trips Database Bureau (TDB) found that residential areas with good public transport services generated more than one vehicle trip per dwelling during the peak hour. This is higher than the trip rates adopted in the TA and indicates that the proposed traffic generation assumptions may be underestimated.¹
- iii) Trip rates at the proposed sites, which are unlikely to have public transport in the short-medium term, are likely to be higher than the local TDB data. Reference to local trip rate data, with appropriate adjustments to accommodate lack of mode choice, should take priority over other trip rate sources.

5.5. Intersection design and speed environment

- i) A 100 km/h speed environment is not appropriate for access to residential subdivisions. The most likely crashes at the proposed intersection forms are side swipe crashes, for which the Safe System speed threshold to reduce fatal and serious injury crashes is 50 km/h.
- ii) A lower speed environment along SH6 is required to support safe access to and from the proposed developments.

¹ Trips Database Bureau (TDB), Transportation Group New Zealand.

- iii) It is recommended that a Safe System Options Assessment is completed to inform the most suitable intersection forms for all road users.

5.6. Active Modes

- i) Safe active travel networks between the proposed development sites and within each development site need to be provided. Where possible, these links should tie into the existing trail network in the area.
- ii) To accommodate an increased demand, the need to upgrade the existing trails and crossing points should also be investigated.

5.7. Public Transport

- i) Public transport provision remains uncertain and has not been confirmed.
- ii) Engagement with Otago Regional Council is required to determine whether public transport services can be provided and how these would operate.
- iii) Where services cannot be provided in the short term, alternative interim arrangements such as privately funded shuttle services should be considered.
- iv) The internal road networks should be designed to future proof for the potential for Public Transport servicing, even if there won't be any servicing in the short-term. This includes the inclusion of covenants on lots that a bus stop and shelter will be placed in front of the unit or positioning future bus stops at appropriate open spaces. The applicant has not proposed any such provision. Without such provision, the ability to retrofit public transport services in the future will be constrained.

5.8. Cumulative Effects and Economic Cost

- i) The TA does not quantify cumulative effects on the wider SH6 corridor.
- ii) This includes the combined impacts of this proposal alongside existing demand, other fast track developments, and growth from Central Otago.
- iii) The Stantec review of the applicant's TA similarly identified that major intersections along the SH6 corridor are already under pressure and have limited capacity to accommodate substantial additional traffic demand.
- iv) The development will contribute to increased congestion along SH6, including through Ladies Mile and Frankton.
- v) This will result in earlier capacity constraints at key downstream intersections, including Crown Range Road, Arrow Junction Road, Lake Hayes Road, Howards Drive, and Lower Shotover Road.
- vi) The resulting impacts on travel time, network efficiency, and reliability have not been assessed.
- vii) These impacts translate into economic costs, including reduced productivity and increased travel time.
- viii) Applying recognised transport economic evaluation methodologies, these effects are likely to be material.
- ix) The Stantec review also identified the need for a more strategic assessment of transport effects that considers future land use growth, infrastructure improvements, travel demand patterns, and cumulative corridor-wide effects.
- x) Consideration should be given to how future network upgrades required to address these cumulative effects and maintain overall network performance will be funded.
- xi) Given the cumulative growth pressures across the Whakatipu Basin and wider Central Otago area, consideration should be given to the use of strategic transport modelling capable of assessing network-wide effects, future land use growth,

infrastructure investment, and travel demand patterns. The Stantec review similarly identified the need for a more strategic assessment framework to understand regional transport effects.

6. Three Waters Commentary

6.1. Servicing Approach

- i) The proposed servicing strategy relies on a predominantly private three waters approach, including onsite water supply, wastewater treatment, and stormwater management systems. While this approach is workable in principle, it introduces a higher level of risk and dependency compared to connection to established public infrastructure networks.
- ii) The proposal relies on private ownership, operation, and maintenance of core infrastructure systems, which introduces long term governance and performance risks. There is limited redundancy within the proposed servicing approach, with systems largely dependent on single-source supply and treatment. Ongoing system performance will depend on effective private management arrangements, which are not yet clearly defined. The absence of connection to wider public networks reduces resilience and limits fallback options in the event of system failure.

6.2. Stormwater

- i) Stormwater management is proposed to be addressed within each development site. The proposed approach seeks to manage both stormwater quantity and quality effects within the site boundaries and, based on the information provided, there appears to be sufficient land available to accommodate onsite stormwater management measures.
- ii) Further information is required to confirm the proposed stormwater management approach for each site, including site specific assessments and supporting design information. Key elements of the design remain to be confirmed at detailed design stage, including sizing, layout, and integration of system components.
- iii) Performance during larger rainfall events or in system failure scenarios is not fully demonstrated and will depend on further design development. Long term effectiveness is dependent on ongoing maintenance of multiple system components, including vegetated and treatment systems. Clear definition of ownership, operational responsibility, and maintenance obligations is required to ensure continued performance over time.

6.3. Wastewater

- i) Wastewater servicing is proposed via onsite treatment and disposal systems located within each development site. The proposal relies on an onsite tertiary treatment system that is intended to treat wastewater to the required standard within the treatment plant itself, with disposal to land functioning as a means of disposing of the treated wastewater rather than providing further treatment.
- ii) As the disposal system is intended to receive highly treated effluent, the land area required for disposal is likely to be less than that associated with more conventional wastewater treatment and disposal systems. Based on the information provided, each site appears likely to be capable of accommodating a suitable disposal area.
- iii) In particular, further information is required to confirm the location and extent of proposed disposal areas, including assessment of site-specific soakage rates to determine the area required for disposal. Consideration should also be given to other environmental factors, including the potential for freezing during winter months, and how disposal areas relate to other components of the development, including proposed open space areas.

- iv) There is no connection to a public wastewater network and therefore no external redundancy. System performance will depend on ongoing maintenance, monitoring, and management of environmental effects. Long term reliability is also dependent on appropriate private ownership and management arrangements.
- v) The proposed development sites are located within the Kawarau River catchment. The Kawarau River has a contact recreation (swimmable) status. Wastewater will therefore need to be treated to a high standard where disposal to land with potential hydraulic connection to groundwater is proposed.
- vi) The applicant should liaise with the Otago Regional Council to confirm what consents are required for the disposal of treated wastewater to ground.

6.4. Water Supply

- i) Depending on the site, water supply is proposed via either an onsite groundwater bore or a surface water take, together with treatment, storage, and reticulation infrastructure to provide potable water and firefighting supply.
- ii) Further investigations are required to confirm the feasibility of providing the required water volumes from the proposed sources. Water quality testing should also be undertaken to confirm that the raw water can be suitably treated to meet drinking water requirements.
- iii) The proposed approach is based on reduced demand assumptions and relies on efficiency measures and private management controls. Long term reliability, resilience during peak demand periods and drought conditions, and firefighting capacity are dependent on confirmation of source capacity and ongoing operational management.
- iv) The applicant should liaise with the Otago Regional Council to confirm what consents are required for any proposed groundwater abstraction or surface water take.

6.5. Overall Three Waters Assessment

- i) The proposed three waters systems are technically feasible but rely on a combination of assumptions and private management arrangements that introduce risk and costs (or disbenefits) that need to be taken into account. These risks require careful management through design and operational controls.
- ii) Key considerations include:
 - (1) Reliance on private systems introduces long term governance and maintenance challenges.
 - (2) System resilience is reduced due to limited redundancy and lack of network connection.
 - (3) Further information and site-specific assessments are required as the proposal progresses, including confirmation of wastewater disposal areas, water supply source capacity, and any associated Otago Regional Council consenting requirements.
 - (4) Legal and operational arrangements must ensure long term performance and compliance.

7. Conclusion

- 7.1. The Project proposes residential development supported by a combination of private infrastructure and transport connections to an already constrained network.
- 7.2. The proposed three waters servicing approach is generally feasible in principle but relies heavily on private ownership, operation, and maintenance arrangements.

Further information, site-specific assessment, and design development are required to demonstrate long term resilience, governance, and operational reliability.

- 7.3. Significant transport concerns remain. In particular, the assessment does not adequately address:
 - i) Trip generation assumptions.
 - ii) Likely levels of private vehicle use resulting from limited transport alternatives.
 - iii) Integration with the wider Whakatipu transport network.
 - iv) Cumulative effects on the SH6 corridor.
 - v) Network resilience and future capacity constraints.
 - vi) The economic costs associated with increased congestion and travel delay.
- 7.4. While the TA demonstrates that localised transport effects may be capable of mitigation, it does not provide sufficient evidence that the wider transport implications of the Project have been adequately assessed. Consideration should be given to a more strategic assessment framework capable of evaluating cumulative growth, travel demand patterns, and network-wide effects.
- 7.5. Overall, while three waters servicing matters may be capable of resolution through detailed design and regulatory controls, significant transport concerns remain. Further assessment is required to demonstrate that the Project can proceed without creating unacceptable long-term transport, infrastructure, and land use effects.

To: Resource Consent Team
Queenstown Lakes District Council

From: Chris Rossiter

Project/File: 310205960/0791

Date: 15 July 2026

**Reference: Fast-track Approvals Act 2024
Oaks Living Limited – Waitiri Fast Track Referral Application (FTRA 2603)
Transport - s 17 comment.**

While this report relates to a referral application under the Fast-track Approvals Act 2024 (FTAA), this report has been prepared by Chris Rossiter in accordance with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note (2023). Mr Rossiter's qualifications and experience are summarised in Appendix A.

Executive Summary

The Oaks Living Limited Fast-track Approval Application to develop 1,115 dwellings across five areas close to Gibbston Valley does not align with the long-term development expectations of the QLDC Spatial Plan. The location of the development sites which are remote from the major employment centres, commercial centres and existing schools along with the lack of public transport means that all future residents will be highly reliant on private vehicles for all trips.

The potential traffic generation of the development will require detailed consideration of how each area accesses the state highway and be aligned with the expectations of the NZTA Planning Policy Manual. The Appendix G Transport Assessment (TAR) includes the Applicant's preliminary assessment of traffic generation. Based on their reported levels of expected traffic generation at each site the development as proposed will require several new roundabouts to be formed at their access to state highway which will trigger a need for assessment of the effects on strategic movements along the highway, spacing of major intersections, potential for consolidating accesses and effects on existing activities along the highway.

The TAR only identifies a need to assess the immediate effects of the development, that is the access to the state highway but does not consider there is a need to address the wider effects on the strategic network and in particular, the effects on SH6 between Gibbston Valley and Frankton (Queenstown Eastern Corridor). Given the size of development being proposed, a comprehensive transport assessment as set out in the PPM Integrated Transport Assessment Guide (June 2026) is required. A comprehensive assessment will need to take into account all planned land use, all planned infrastructure improvements and all travel modes to provide a robust assessment of the transport effects of the Application and identify all necessary mitigation, timing for mitigation works and the funding mechanism for all works.

1 Introduction

This report provides preliminary commentary on the transport analysis and potential transport effects of the Oaks Living Limited Fast-track Approval Application to develop five areas close to the Gibbston Valley to create 1,115 dwellings with a range of densities from very low to high. Four of the development sites will have direct access to State Highway 6 (SH6). One of the development areas, Ara Tihi Eastburn, will have indirect access to State Highway 6 (SH6) via Crown Range Road. Together though, all the sites will contribute to greater use of SH6 west of Crown Range Road.

2 QLDC Spatial Plan

QLDC's Spatial Plan was adopted in 2021 with the primary aim to shape the future urban form of the Queenstown Lakes District and influence where future land use growth occurs so that the appropriate infrastructure is in place, and suitable for the increased demands. The Spatial Plan identifies six priority areas for development (such as Ladies Mile and Te Tapuae Southern Corridor). Structure Plans then guide development of each area to ensure infrastructure and services are provided to meet community needs.¹

The Oaks Living Limited application takes no account of the Spatial Plan and its primary aim to increase residential density in areas along the Eastern and Southern Corridors to Frankton. None of the proposed development is located within any identified growth area and as a direct consequence, the existing planned future transport infrastructure has not been designed to accommodate the travel demands associated with the proposed development. No assessment is proposed in the TAR of the effects of the increased travel demands on the planned transport infrastructure to understand the effects or to identify any necessary mitigation.

The development masterplan indicates that 65% of all proposed dwellings are low density. The dispersed rural nature of the proposed development means that operating any public transport service to the residential areas will be impractical. Since travel distances to the main employment centres or existing schools are more than 5km and there are no public transport options in the area, the use of active travel modes is unrealistic, and all development will be highly reliant on private vehicles for the majority of trips. Although the Application anticipates provision of a school, there is no detail on the nature of the school and there is no certainty that this would be supported by the Ministry of Education. The Application will create some employment opportunities but as a whole, the proposed development is not self-contained and will be highly reliant on travel to the wider area by private vehicle. This is contrary to the expectations of the Spatial Plan.

¹ Since the Spatial Plan was adopted, I understand that Ladies Mile has been rezoned for urban purposes and is now operative, and while the Te Tapuae Southern Corridor has not been subject to a new plan change, a significant portion of the future land use proposed along the Southern Corridor has been consented through the RCL Homestead Bay Panel decision made under the FTAA which anticipates development of 2,800 new dwellings and a neighbourhood centre.

3 Site Context

The Gibbston Valley has a largely rural nature with vineyards, farms and lifestyle property. The SH6 Gibbston Highway forms the primary link between Cromwell to the north and Arrowtown, Frankton and Queenstown.

The Applicant's preliminary transport assessment report by 'Commute Transportation Consultants' (TAR) has been based on an average volume of 5,700 vehicles per day (vpd) measured west of Victoria Flats Road. It makes no reference to the background growth in the highway volumes, the wide seasonal variations in daily volumes that exist, anticipated changes in volumes associated with approved development or changes in traffic volumes from east to west along the highway. All these factors will influence the design requirements for intersection improvements at access points to the highway.

Figure 3-1 shows the average daily traffic volumes recorded by NZTA since 2018 at their count site 00600970, about 2 km to the west of Victoria Flats Road. The average daily volumes on SH6 were below 5,000 vehicles per day (vpd) in 2020 because of the COVID-19 pandemic. Since 2020, daily traffic volumes have been rising at 300 to 400 vpd per annum and reached about 6,500 vpd in 2025. That represents an average annual growth rate from 2020 to 2025 of about 5.5 percent per annum compared with volumes in 2025 and excludes any growth that could be associated with the development of 'The Yards' on Victoria Flats Road.

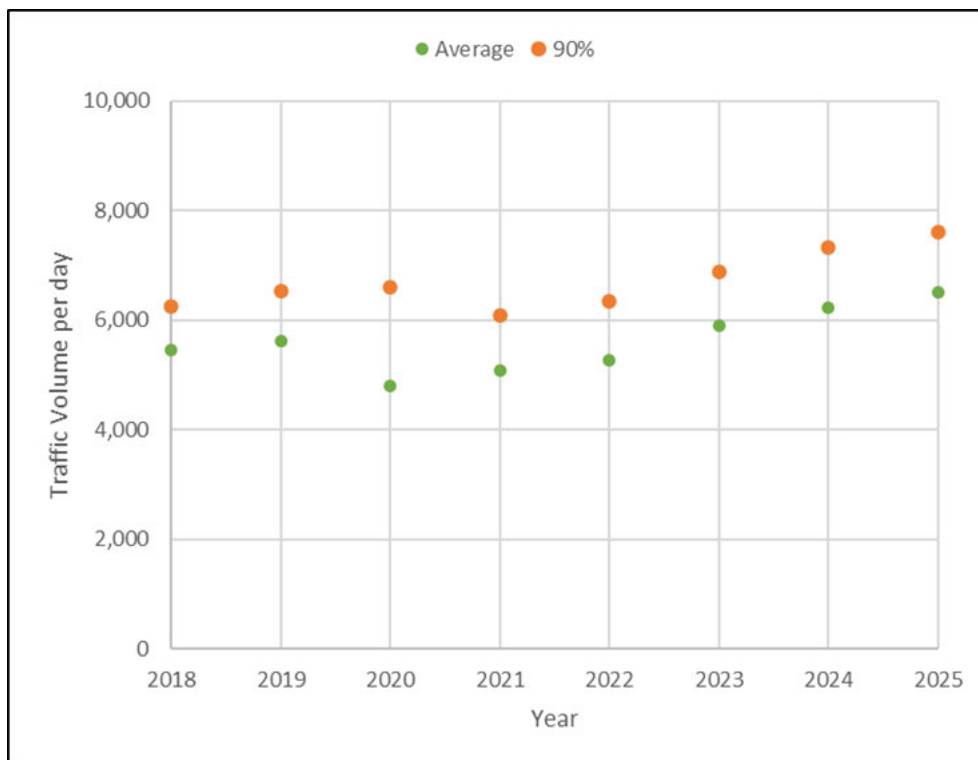


Figure 3-1: Average daily traffic volumes

Figure 3-1 also shows the 90th percentile traffic volumes which reflects movement volumes across the busiest five weeks of the year. These have exceeded the average daily volumes by about 1,100 vpd since 2021 and reflects the strong seasonal variation in volumes that exists in this location, shown in **Figure**

Reference: Oaks Living Limited – Waitiri Fast Track Referral Application (FTRA 2603)

3-2. Daily volumes of below 6,000 vpd were recorded in 2025 during the middle of the year (weeks 19 to 35) but exceeded 7,000 vpd during the summer months (weeks 1 to 5 and weeks 46 to 52).

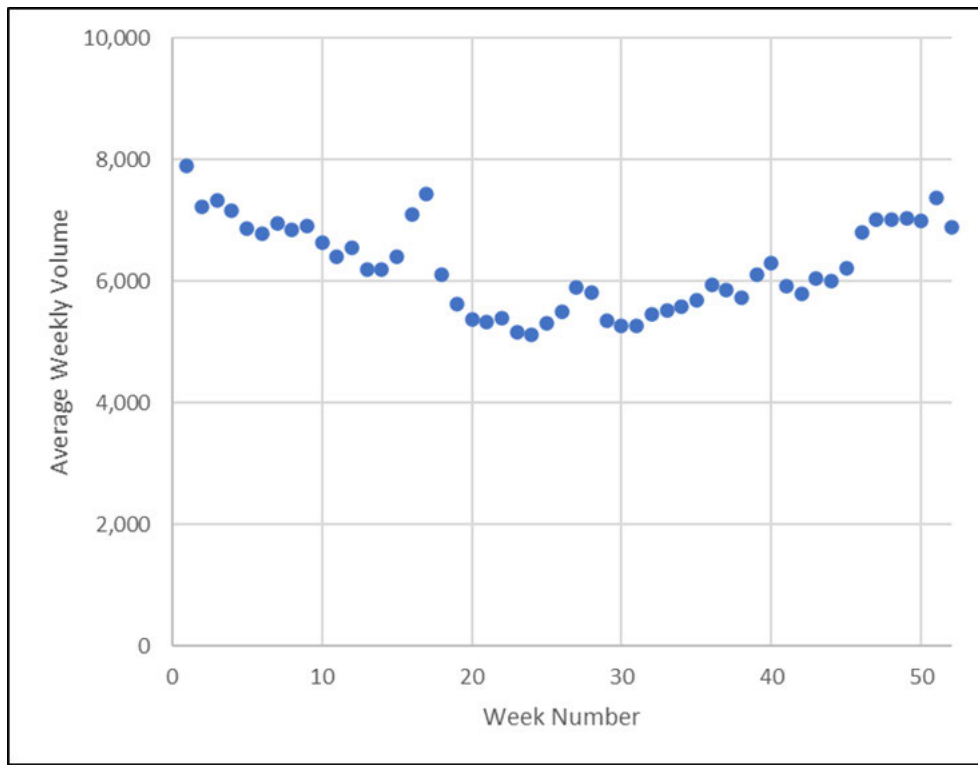


Figure 3-2: Seasonal variation in traffic volumes in 2025

1 Traffic Generation

The traffic generation estimates have been based on an Australian data source and makes no reference to other sources which include surveys from New Zealand. The preliminary estimates of traffic generation for medium and high-density residential development appear to be very low for an environment where there is no access to any public transport. The traffic generation calculations also make no provision for secondary dwellings on individual lots which means that the traffic generation estimates are likely to be lower than would occur in practice.

2 Traffic Distribution / Route Assignment

The TAR does not include any details of the indicative distribution of traffic movements from each site or what the cumulative effect of traffic movements would be on traffic volumes at each of the other proposed access locations.

The TAR does not include any details of how vehicle movements from each site will be distributed across access routes when multiple options are available.

3 State Highway Access

The TAR includes some assessment against the NZTA Policy Planning Manual (PPM) in relation to access to a state highway. However, the TAR assessment of sight distance at proposed access points makes no reference to the PPM which includes more stringent requirements than the QLDC District Plan. Since NZTA is the Road Controlling Authority, any access alterations or new access will require their approval and conformance to the PPM.

The PPM also sets out requirements for minimum separation between access points to a highway. The proposal involves creation of closely spaced access points which would not meet the PPM requirements. The applicant does not appear to have considered any consolidation of access points.

The PPM requires that a Safe System Assessment is completed to determine the appropriate access configuration to the state highway. Figure 6-1 shows an extract from the PPM showing the guidance on intersection configurations. For traffic volumes in the range 6,000 to 8,000 vpd, I have interpreted the guidance to mean that a priority intersection with a right turn bay represents the preferred treatment to minimise injury crash rates for side road volumes up to about 1,000 vpd. A roundabout has lower death and serious injury crash rates than a priority intersection for side road volumes of greater than 1,000 vpd.

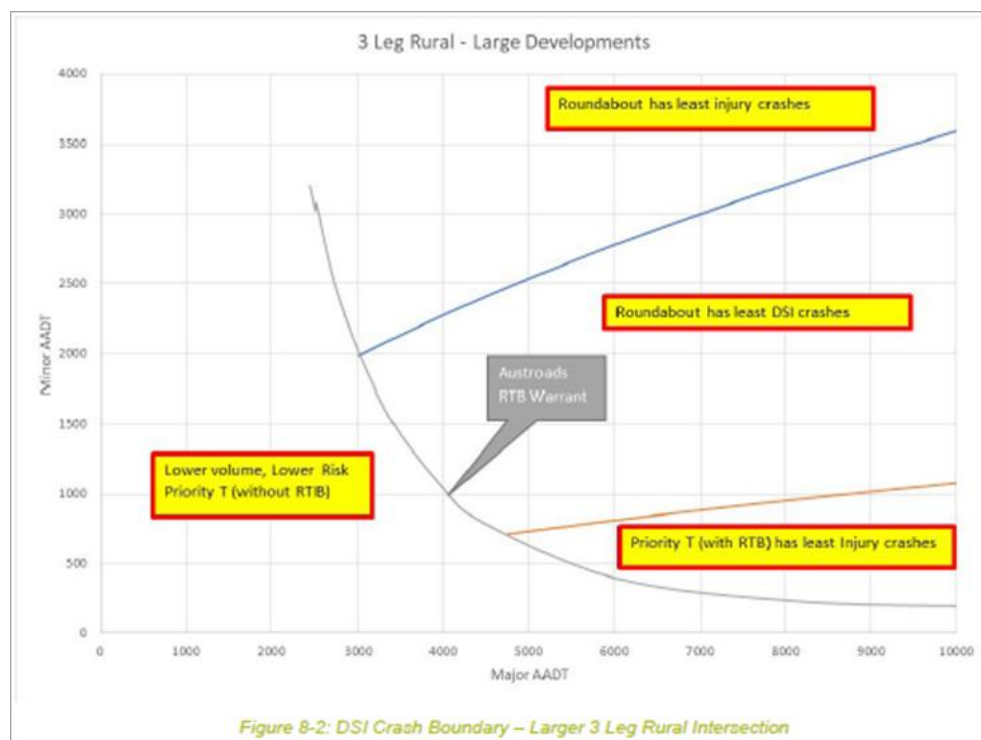


Figure 3-1: Extract from PPM

Based on a highway volume of about 7,500 vpd which represents about three years' annual growth compared to 2025, the PPM minimum treatment involves provision of a right turn bay with a roundabout being preferred once the side road volume reaches about 1,000 vpd.

The TAR assessment of intersection requirements considers that a right turn bay represents sufficient treatment in each location. I consider that this represents an incorrect interpretation of the PPM and that roundabouts would be the preferred intersection form at possibly five locations depending upon the

Reference: Oaks Living Limited – Waitiri Fast Track Referral Application (FTRA 2603)

assignment of movements to access points as shown in the following figure. No assessment has been provided on the feasibility of forming roundabouts or the effects of that number of roundabouts on the strategic function of the highway.

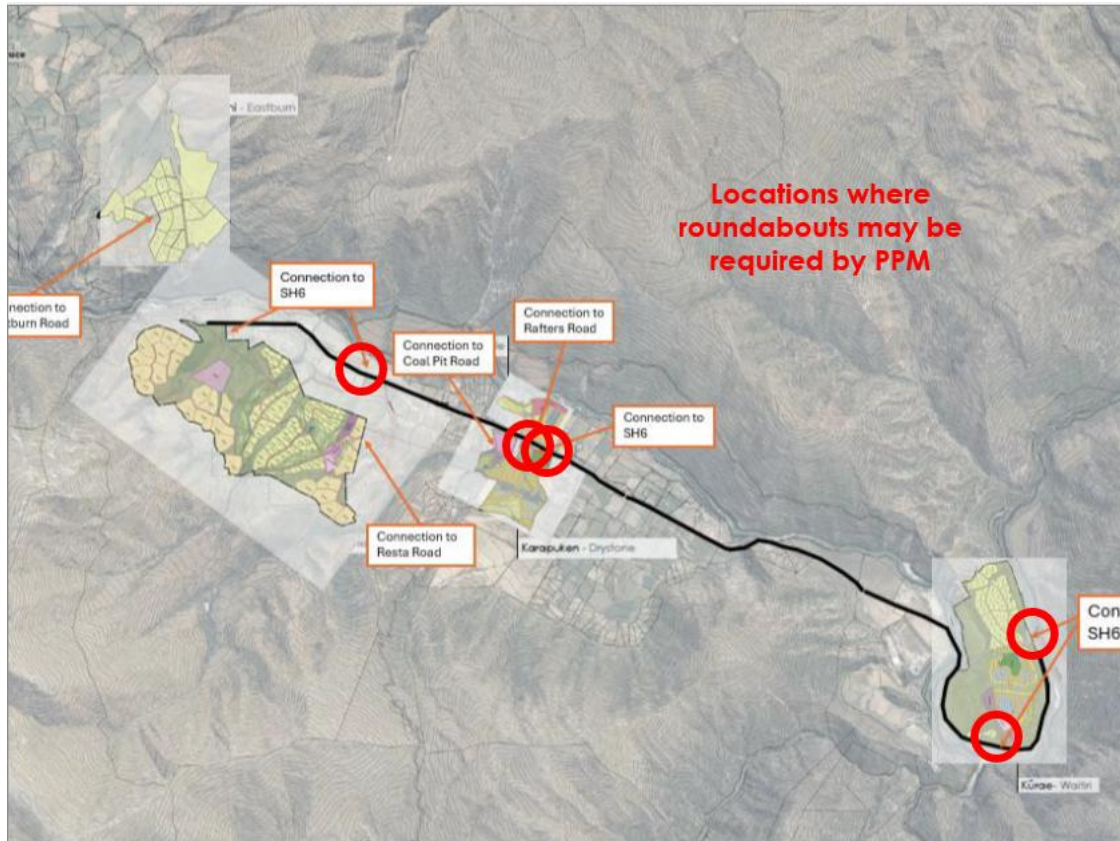


Figure 3-2: Potential locations requiring a roundabout

4 Wide Area Effects

The preliminary TAR includes some high-level assumptions about movement patterns. For the substantive application, the assessment of transport effects will need to be supported by a robust analysis of travel demands based on forecast landuse across the region to establish travel demand patterns.

The effects of developing 1,115 new dwellings along the Gibbston Highway could introduce an additional 8,000 vehicle movements per day onto the state highway with a large proportion of this travelling towards Arrowtown, Frankton and Queenstown. All major intersections along the highway between Gibbston and Frankton are under pressure and have little capacity to accommodate additional traffic. The assessment of effects will need to consider effects on all intersections and what mitigation actions would be necessary to accommodate the additional travel demands, timing for implementing any mitigation action and a funding mechanism. This will require a comprehensive Integrated Transport Assessment Report to be prepared with a scope that is aligned to the PPM Guidance.

Reference: Oaks Living Limited – Waitiri Fast Track Referral Application (FTRA 2603)

Principal Transportation Engineer
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Appendix A Author

Christopher Rossiter is a Principal Transportation Engineer at Stantec New Zealand Limited (**Stantec**). He has held this position since 2013 and been employed at Stantec (and TDG prior to its incorporation with Stantec) since 2006. Prior to joining TDG (now part of Stantec), he was employed as a Principal Systems Engineer and Technical Manager with BAE Systems in England.

Chris holds the academic qualifications of Bachelor of Science from the University of Exeter and Bachelor of Arts (Open) from the Open University, England.

Chris is registered as a Chartered Professional Engineer with Engineering New Zealand. He has 40 years' engineering experience including 19 years' transportation engineering in New Zealand on a wide range of projects involving transportation engineering design, road safety audits, transportation planning and assessment.

Chris' role at Stantec includes preparing transportation assessment reports for a wide range of resource consent applications across the country and also providing transportation engineering services for many councils.¹ He has prepared expert transport evidence on behalf of councils and also for private developers in relation to a variety of land-use resource consent hearings and plan changes.

While acknowledging this is a referral application made under the Fast-track Approvals Act 2024 (FTAA), this report has been prepared in compliance with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023 as if it was expert evidence presented in proceedings before the Environment Court. Unless stated otherwise, this report is within Chris' area of expertise and does not omit consideration of material facts known to him that might alter or detract from the opinions expressed in this report.

Fast Track Approvals Act 2024- Individual Elected Member Statement

COUNCIL REFERENCE NUMBER: FTRA2603 Oaks Living Limited Waitiri Project

SUMMARY OF APPLICATION

A five-site mixed-use (primarily residential) development proposal across the Gibbston Valley area, including sites along Eastburn Road and Gibbston Highway, enabling a range of activities across rural and character-zoned land.

SUMMARY OF INFO PROVIDED WITH APPLICATION

1. *Project Site, Urban Design Statement, Project Delivery and Time Frame*
2. *Architectural plans, scheme plans*
3. *Engineering Documents: Engineering infrastructure servicing Technical Memorandum, external infrastructure concept plans*
4. *Expert Reports – geotechnical report, transport memorandum, economic report, AEE*
5. *Consultation reports*

IMPORTANT INFORMATION REGARDING THIS ELECTED MEMBER STATEMENT

ELECTED OFFICIAL NAME – G S BARTLETT, QLDC COUNCILLOR, QUEENSTOWN WHAKATIPU WARD

ELECTED OFFICIAL STATEMENT:

With reference to the above project, as an elected member I have fielded concerns from members of the community regarding the appropriateness of the nature and scale of the proposed development.

Particular concerns are held around the fact that the proposed development areas are outside of the areas of development anticipated by the community through various QLDC planning documents developed with community consultation over many years.

Further, concerns are held over how the many Fast Track applications being proposed and/or considered for referral or approval are treated in relation to each other, and in particular whether any cumulative effects, especially in relation to infrastructure demands such as traffic effects, are taken into account.

Notwithstanding the above, should this project be referred the applicant should be required to fully address the provision of public trails both within the various development areas and how these will connect to the existing and planned public trail network. From information made available to me, this should at least include the connection over the Waitiri peninsula on an existing paper road, utilisation of an existing paper road on the true left bank of the Kawarau River, and access to and from the Crown Terrace from the Eastburn development area. Other minor missing links to the existing network should also be addressed, preferably in consultation with the Queenstown Trails Trust.

Finally, any consideration of development of these areas would be an opportune time for the ongoing issue of spread of invasive wilding pines from any seed sources on the applicant's properties to be addressed.

Elected Member Statement, Waitiri Development Fast Track Application, July, 2026

My name is Samuel Belk, I am a QLDC Councillor for the Arrowtown Kawarau Ward. This is my Elected Member Statement regarding the Waitiri Development Fast Track Application. Because of the Fast Track Rules around non-disclosure prior to review, I have been unable to formally consult with the residents in my district. However, I am a 31-year resident of the district. I know many people in the district and am therefore confident that the views that follow are theirs; the results of many conversations over the years about the potential for these developments, to impact the district.

I have serious concerns about the Waitiri Development proposal. The concerns include:

- 1) non-alignment with the Operative and Proposed district plans, the Wakatipu Basin Land Use Planning Study, and the district's spatial plan,
- 2) significant potential costs to QLDC in ensuring adequate infrastructure is provided within and in support of the proposed development in our Long-Term Plan,
- 3) the fact that this proposal does not alleviate the housing shortage in the Central Lakes sub-region, and would in fact exacerbate it,
- 4) the lack of even meaningful conceptual provision of the infrastructure necessary for developments of this scale,
- 5) the destruction of amenity value and thereby economic activity, particularly for tourism,
- 6) the over-riding of the Gibbston Character Zone,
- 7) the threat to the Kawarau Gibbston International Dark Sky Park.
- 8) the superficial and poorly researched nature of the proposal.

Planning: QLDC's district, spatial, and long-term plans, the results of years of planning by Council staffs and councillors, have deliberately never included residential development on the Crown Terrace, Gibbston Valley, Victoria Flats, or Waitiri Peninsula. The reasons have included the amenity value, constrained geography, lack of infrastructure, and the need to preserve the "character", replete with ONL's and ONF's, so important to the region's broader tourism-based economy and its critical contribution to the national economy.

Housing: the six developments do not address, and, in fact, will inescapably exacerbate the lack of housing, especially affordable housing, in the region. These developments are targeted largely for wealthy buyers as second homes. They will not be bought by those for whom housing is in shortage, especially essential workers: teachers, nurses, police, firemen, et cetera. If the rest of the district is any guide, these homes will spend most of the year vacant, as "ghost houses". The purported \$2.17 billion benefit has not addressed the economic disruption caused by construction of these developments which will compound traffic, labour shortages, materials shortages, and prices.

Infrastructure: there is a serious lack of infrastructure with no plans or funding to upgrade, maintain or replace it.

- a) **Roading:** the Kawarau Gorge road (SH6) services 5 of the 6 proposed developments. It is a two-lane road which traverses two narrow older bridges. NZTA has no plans or funding to widen the road or upgrade the bridges. The proposals will add 1093 dwellings to a road that crosses a 65 year old two-lane bridge. In addition, the total number of dwellings (1,115) will further congest the Ladies Mile/Lower Shotover Bridge/Frankton Corridor
- b) **Water:** water is scarce in Gibbston Valley and the Kawarau Gorge. The simple fact is that Drystone ("Kara Puke"), does not have water for 424 proposed dwellings nor does Riverside ("Taiheke") for 192. The application implies that water would be supplied by the Nevis River, pumped over/under the Kawarau River to a reservoir on the Waitiri Peninsula. From there it would be gravity fed (again "no booster pumps"), crossing the Kawarau once more, to the Riverside and Drystone developments. The total distance is (straight line) 9.6 kms. This is an extraordinary assumption about both the distance, engineering, and the topography.

- c) Sewerage: much of the proposed development relies on treatment and then eventual discharge to the Kawarau. Iwi, (Kai Tahu), are firmly against discharge of *any* treated sewerage to the Kawarau. The application states "with higher achievable effluent quality being achieved the disposal to ground is not needed to provide treatment but rather as a method to ensure the water has the mana restored to it before eventually joining the Kawarau Awa". It is doubtful this is "achievable" for 1,115 dwellings, especially for the 616 at Riverside and Drystone or that it was raised in the brief meeting with Ngai Tahu in 2025, given recent discussion between QLDC and the Kai Tahu governance hui on the subject wastewater discharge to the Kawarau. The sewerage proposal is simply not realistic or acceptable.

The Landscape: the proposed developments will seriously jeopardise the "amenity" value of a large portion of the region, "amenity" because that is the value that attracts tourists with positive effects on regional growth. Most properties in the immediate area are zoned rural, most designated Highly Productive Land Category 3 designation (HPL III). The proposals are adjacent to or proximal to vineyards, pastoral farms, horticulture, grain production, and horse farms. Gibbston is the birthplace of the Central Otago Wine Industry (Alan Brady, 1982) and produces some of the world's best pinot noir (multiple silver and gold medals in London). Gibbston Valley has at least a dozen tasting rooms, in addition to restaurants, accommodation, and B&B's. It is the birthplace of Bungy Jumping (AJ Hackett). The Crown Terrace includes Nadia Lim's Farm/Royalburn (My Food Bag). All of these enterprises can be expected to oppose these developments.

The Wakatipu Basin Land Use Planning Study, commissioned by the QLDC, states the "absorption capability" of both the "Gibbston Highway Flats" and "Crown Terrace" is "very low".

The area's high "amenity value" was codified in 1988 with the writing of the Gibbston Character Zone ("GCZ"), a Council document which comprises 22 pages. It states:

The purpose of the Gibbston Character Zone is to provide primarily for viticulture and commercial activities with an affiliation to viticulture within the confined space of the Gibbston Valley. The zone is recognized as having a distinctive character and sense of place. It incorporates terraced areas above the Kawarau River; lying between and including Chard Farm and Waitiri. Soils, the microclimate within this area and availability of water have enabled development for viticulture to the extent that this is an acclaimed wine producing area. The zone has experienced residential subdivision and development. This creates the potential to degrade the distinctive character and create conflict with established and anticipated intensive viticultural activities.

The GCZ, the foundational document of Gibbston Valley, warns of the potential scale of development and the effects it could have:

23.2.1.1 This enables viticulture and agricultural activities while protecting, maintaining or enhancing the values of indigenous biodiversity, ecosystems services, the landscape and surface of lakes and rivers and their margins.

23.2.1.2 This ensures land with potential value for rural productive activities is not compromised by the inappropriate location of other developments and buildings.

Dark Sky Park: Finally, there is no allowance in this document, or even recognition, that the region has received International Dark Sky Park Status, awarded in 2023 which recognizes that Gibbston has uniquely dark sky, only 25 kms from an international airport. The proposed development of 1,115 dwellings and attendant lighting will almost certainly lead to the loss of Dark Sky Park status, acquired only two years ago.

The above is a very brief explanation why I, as an Elected Member of my District, oppose this development proposal on behalf of my district and constituency. I would welcome and respond to any queries.

Samuel Belk (“Q”)
Councillor, Arrowtown Kawarau Ward

(joined by)

Jon Mitchell
Councillor, Queenstown Whakatipu ward

Niki Gladding,
Councillor, Wanaka Upper-Clutha Ward

Fast Track Approvals Act 2024- Individual Elected Member Statement

COUNCIL REFERENCE NUMBER: FTRA2603 Oaks Living Limited Waitiri Project

SUMMARY OF APPLICATION

A five-site mixed-use (primarily residential) development proposal across the Gibbston Valley area, including sites along Eastburn Road and Gibbston Highway, enabling a range of activities across rural and character-zoned land.

SUMMARY OF INFO PROVIDED WITH APPLICATION

1. Project Site, Urban Design Statement, Project Delivery and Time Frame
2. Architectural plans, scheme plans
3. Engineering Documents: Engineering infrastructure servicing Technical Memorandum, external infrastructure concept plans
4. Expert Reports – geotechnical report, transport memorandum, economic report, AEE
5. Consultation reports

IMPORTANT INFORMATION REGARDING THIS ELECTED MEMBER STATEMENT

Elected Official NAME – Quentin Smith

I oppose the referral of the proposed Waitiri development at Gibbston into the fast-track process.

- There is no regional significance to the development. It is fragmented and sprawling urban development in the wrong place.
- The proposal is contrary to all strategic planning direction in the district, including the District Plan, the Spatial Plan and the Wakatipu Basin Landuse Planning Study.
- A development of this scale could fundamentally change the character of Gibbston and place significant pressure on State Highway 6, local infrastructure, community facilities and the district's ratepayers. These impacts require proper scrutiny, transparent infrastructure planning and meaningful involvement from the Council and the local community.
- I believe the economic value is significantly overstated and does not recognise the unfunded infrastructure.
- The State highway consequences alone need tens or hundreds of millions of dollars which are entirely unfunded.

This is not about opposing housing or development. It is about ensuring growth occurs in the right places, is supported by infrastructure, and does not bypass the planning processes established to protect communities and outstanding landscapes.

Fast-track referral is not appropriate for a proposal with such significant and long-lasting consequences. If the application is referred then FULL costing and charging of consequential infrastructure is essential including State Highway capacity in Frankston, schools, libraries, sport facilities, health services must be recovered directly consenting.

ELECTED OFFICIAL STATEMENT:

Fast Track Approvals Act 2024- Individual Elected Member Statement

COUNCIL REFERENCE NUMBER: FTRA2603 Oaks Living Limited Waitiri Project

SUMMARY OF APPLICATION

A five-site mixed-use (primarily residential) development proposal across the Gibbston Valley area, including sites along Eastburn Road and Gibbston Highway, enabling a range of activities across rural and character-zoned land.

SUMMARY OF INFO PROVIDED WITH APPLICATION

1. *Project Site, Urban Design Statement, Project Delivery and Time Frame*
2. *Architectural plans, scheme plans*
3. *Engineering Documents: Engineering infrastructure servicing Technical Memorandum, external infrastructure concept plans*
4. *Expert Reports – geotechnical report, transport memorandum, economic report, AEE*
5. *Consultation reports*

IMPORTANT INFORMATION REGARDING THIS ELECTED MEMBER STATEMENT

ELECTED OFFICIAL NAME – MELISSA WHITE – ARROWTOWN-KAWRAU WARD

ELECTED OFFICIAL STATEMENT:

I am strongly opposed to the Waitiri Creek proposal.

This is not because I oppose housing. In fact, Queenstown Lakes has spent years planning for growth, enabling housing, investing in infrastructure, and identifying where future urban development should occur. My concern is that this proposal fundamentally cuts across the strategic planning framework that this community, Council, mana whenua, government agencies and infrastructure providers have spent years developing.

The Waitiri Creek proposal is not located within a planned growth area identified in the Queenstown Lakes Spatial Plan. I am particularly troubled by the scale of this proposal. Approximately 1,000 houses represent the creation of an entirely new urban community. Such growth should occur in locations where transport, schools, water, wastewater, parks, community facilities and other essential infrastructure have been strategically planned, sequenced and funded.

The argument in support of many fast-track housing proposals is that Queenstown Lakes desperately needs more housing capacity. However, the evidence before us suggests otherwise. Council planning documents identify very significant existing and future housing capacity already

enabled through the District Plan, Urban Intensification work and Spatial Plan growth areas. Plan-enabled housing capacity already far exceeds projected demand over coming decades.

The issue facing our district is not a lack of zoned land. The issue is delivering infrastructure to support the growth that has already been planned.

Every time an out-of-sequence development is advanced outside our planned growth areas, there is a risk that finite infrastructure funding, agency attention and staff resources are diverted away from locations that have already been identified for growth and where housing can be delivered in a coordinated way. Council has previously warned that unanticipated developments can have the unintended consequence of delaying far larger numbers of planned homes elsewhere in more appropriate locations.

I am also concerned that the proposal has failed to demonstrate meaningful affordable housing outcomes. The proposal does not include an affordable housing mechanism or provision for perpetual affordable housing. In a district experiencing one of the most severe affordability crises in New Zealand, simply increasing dwelling numbers is not enough. The question is who those homes will serve and whether they will assist the workers and families our communities are struggling to retain.

Perhaps most concerning is the cumulative effect of fast-track proposals across the Whakatipu Basin. More than 11,000 homes are already being proposed through fast-track processes in the basin and that these developments collectively place significant pressure on transport networks, social infrastructure and public services. The cumulative implications remain unresolved.

In my view, this proposal represents poor planning.

It seeks to establish a major new urban area in a location that is not identified for growth, is not supported by the Spatial Plan, has not been demonstrated as necessary to meet projected housing demand, does not provide a credible affordable housing response, and risks undermining years of strategic planning and infrastructure coordination.

As elected members, we have a responsibility to consider not only the number of houses being offered, but whether those houses are being delivered in the right place, at the right time, and in a way that supports the long-term wellbeing of our communities.

Protection of the Gibbston Character Zone

I am also deeply concerned about the impact this proposal would have on the Gibbston Character Zone. Gibbston is not simply vacant land waiting to be urbanised. It is one of the district's most distinctive landscapes and an area whose unique character has been deliberately recognised and protected through the District Plan.

The purpose of the Gibbston Character Zone is to maintain the open rural landscape, viticultural heritage, productive land use and the distinctive sense of place that makes Gibbston unlike anywhere else in the district.

What is being proposed here is not a minor adjustment to existing zoning. Once this type of urban development is established within or adjacent to the Gibbston Character Zone, the effects cannot

realistically be reversed. The open character, rural amenity values, viticultural landscape and separation from the wider urbanised areas of the Whakatipu Basin would be permanently altered.

I believe this proposal fundamentally conflicts with the purpose and intent of the Gibbston Character Zone.

The district has spent years determining where urban growth should occur and where important landscape and rural character values should be protected.

Again for me, the issue is not simply housing. It is whether we are prepared to sacrifice one of the district's most important rural landscapes in order to enable growth in a location that has never been identified as appropriate for growth and is not required to meet projected housing demand. The answer, in my view, should be no.

Long-Term Costs to the Community Outweigh the Claimed Economic Benefits

I am also not persuaded that the projected economic benefits of this proposal outweigh the long-term costs that would ultimately be borne by the wider community.

While the application points to construction expenditure, employment opportunities and economic activity associated with delivering approximately 1,000 homes, these benefits are largely short-term in nature. By contrast, the costs associated with servicing and supporting an entirely new urban community in an unplanned location will be ongoing and potentially permanent.

The proposal will generate additional demand for transport infrastructure, water supply, wastewater treatment, stormwater management, public transport, parks, reserves, community facilities and social infrastructure. While some infrastructure may be funded directly by the developer, history demonstrates that the ultimate responsibility for maintaining, upgrading and replacing public infrastructure frequently falls upon future ratepayers and taxpayers.

This is particularly concerning given that substantial public investment is already programmed to support growth in areas specifically identified through the Spatial Plan and District Plan. Directing growth into locations that have not undergone the same strategic planning process risks creating further pressure on Council, central government agencies and infrastructure providers, potentially diverting resources from areas where growth has already been planned and enabled.

Furthermore, the economic assessment appears to focus primarily on the benefits generated by the proposal itself, while giving insufficient weight to the value of the environmental, landscape, rural and amenity attributes that may be permanently diminished as a consequence of development.

Gibbston is one of the district's most recognisable landscapes and an internationally recognised wine-growing area that contributes significantly to the Queenstown Lakes identity, visitor experience and local economy. The value of its open landscapes, rural setting and distinctive

character cannot be measured solely through development yield or construction expenditure. Once these qualities are eroded through urbanisation, they cannot easily be recreated or restored.

I am concerned that the proposal effectively privatises many of the short-term economic gains while socialising a significant proportion of the long-term costs and consequences. The community may ultimately inherit increased infrastructure obligations, greater congestion, pressure on public services and the permanent loss of landscape values that have taken generations to establish. For these reasons, I do not accept that the claimed economic benefits justify the scale of change proposed or outweigh the long-term costs and risks to the district.

The Waitiri Creek proposal is the wrong development in the wrong place. It is inconsistent with the Spatial Plan, inconsistent with the intent of the District Plan, threatens the integrity of the Gibbston Character Zone, places additional pressure on infrastructure that is already struggling to keep pace with planned growth, and undermines years of evidence-based planning. While the proposal may deliver short-term economic activity, those benefits do not outweigh the long-term infrastructure costs, cumulative impacts and irreversible loss of rural landscape character that would be borne by future generations. Future generations will judge us not by how many houses we approved, but by whether we had the discipline to ensure growth occurred in the right locations and in a manner that protected the very qualities that make Queenstown Lakes unique. I do not believe this proposal meets that test, and I am unequivocally opposed to it.

Hon Tama Potaka

Minister of Conservation
Minister for Māori Crown Relations
Minister for Māori Development
Minister for Whānau Ora
Associate Minister of Housing



CORTP-8427

21 July 2026

Hon. Chris Bishop Minister
for Infrastructure
c.bishop@ministers.govt.nz
Parliament Buildings Private
Bag 18041
WELLINGTON 6160

Tēnā koe Hon. Bishop

Thank you for your invitation to comment on the fast-track consent application for the **Waitiri Project** in Gibbston Valley, Queenstown. The proposal comprises a large-scale mixed-use development including approximately 1,115 residential lots, visitor accommodation, a resort precinct, commercial and community facilities, a school site, supporting infrastructure, and substantial open space and ecological restoration areas.

Queenstown Lakes continues to experience significant housing affordability pressures. As at February 2026, the median house price was approximately \$1.34 million and the median weekly rent was \$683. While Queenstown Lakes has one of the highest rates of residential construction in New Zealand, strong population growth and tourism demand continue to place pressure on the housing market. The proposal would provide a substantial increase in housing supply, including a range of housing typologies and a commitment that at least five percent of residential lots will be delivered as affordable housing. The proposal would deliver additional housing supply and community infrastructure in a district facing ongoing growth pressures.

However, the site is located within Gibbston Valley, which is not identified for significant growth in the Queenstown Lakes Spatial Plan. The scale of development would represent a significant change from the area's existing predominantly rural character.

There are a number of matters that would require careful consideration through the detailed consenting process. These include potential impacts on the surrounding landscape and rural character, transport effects on State Highway 6 and the wider Queenstown transport network, servicing and infrastructure arrangements, natural hazards, and the implications of enabling substantial growth in a location not envisaged for significant urban development.

The proposal is expected to deliver positive housing and community benefits through increased housing capacity, additional infrastructure, community facilities and environmental restoration. While there are planning, transport and infrastructure matters requiring further assessment, these can be worked through at the detailed consenting stage. From the perspective of the Housing Portfolio, I have no objection to this application being referred to the next stage of the fast-track process.

Mauriora,

A handwritten signature in blue ink that reads "Tama Potaka".

Hon Tama Potaka
Associate Minister of Housing

From: [Infrastructure Portfolio](#)
To: [FTArefferrals](#)
Subject: FW: CORPG4962 / Invitation to comment on Fast-track referral application for the Waitiri Project under the Fast-track Approvals Act 2024 – FTAA-2605-1240
Date: Tuesday, 30 June 2026 9:49:26 am

From: Paul Goldsmith (MIN) <P.Goldsmith@ministers.govt.nz>
Sent: Tuesday, 30 June 2026 9:48 AM
To: Infrastructure Portfolio <Infrastructure.Portfolio@parliament.govt.nz>
Cc: Paul Goldsmith (MIN) <P.Goldsmith@ministers.govt.nz>
Subject: RE: CORPG4962 / Invitation to comment on Fast-track referral application for the Waitiri Project under the Fast-track Approvals Act 2024 – FTAA-2605-1240

Good morning,

No comment from Minister for Arts, Culture and Heritage.



Office of Hon Paul Goldsmith

Minister for Arts Culture and Heritage | Minister of Justice
Minister for Media and Communications | Minister for Pacific Peoples
Minister for the Public Service and Digitising Government
Minister for Treaty of Waitangi Negotiations

Email p.goldsmith@ministers.govt.nz | www.beehive.govt.nz

Private Bag 18041, Parliament Buildings, Wellington 6160, New Zealand

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Please note information about meetings related to the Ministers' portfolios will be proactively released (this does not include personal or constituency matters). For each meeting in scope, the summary would list: date, time (start and finish), brief description, location, who the meeting was with, and the portfolio. If you attend a meeting with the Minister on behalf of an organisation, the name of the organisation will be released. If you are a senior staff member at an organisation, or meet with the Minister in your personal capacity, your name may also be released. The location of the meeting will be released, unless it is a private residence. The proactive release will be consistent with the provisions in the Official Information Act, including privacy considerations. Under the Privacy Act 1993 you have the right to ask for a copy of any personal information we hold about you, and to ask for it to be corrected if you think it is wrong. If you'd like to ask for a copy of your information, or to have it corrected, or are concerned about the release of your information in the meeting disclosure, please contact the sender. You can read more about the proactive release policy at <https://www.dia.govt.nz/Proactive-Releases#MS>

From: Infrastructure Portfolio <Infrastructure.Portfolio@parliament.govt.nz>
Sent: Wednesday, 24 June 2026 9:31 AM
To: Nicola Willis (MIN) <N.Willis@ministers.govt.nz>; Hon Shane Jones <Shane.Jones@parliament.govt.nz>; Nicola Grigg (MIN) <N.Grigg@ministers.govt.nz>; Tama Potaka (MIN) <T.Potaka@ministers.govt.nz>; Paul Goldsmith (MIN) <P.Goldsmith@ministers.govt.nz>; Mark Mitchell (MIN) <M.Mitchell@ministers.govt.nz>; Louise Upston (MIN) <L.Upston@ministers.govt.nz>; Simeon Brown (MIN) <S.Brown@ministers.govt.nz>; Erica Stanford (MIN) <E.Stanford@ministers.govt.nz>
Cc: FTArefferrals <ftarefferrals@mfe.govt.nz>
Subject: CORPG4962 / Invitation to comment on Fast-track referral application for the Waitiri Project under the Fast-track Approvals Act 2024 – FTAA-2605-1240

To:

- Minister for Economic Growth
- Minister for Regional Development
- Minister for the Environment
- Minister for Māori Crown Relations: Te Arawhiti
- Minister for Māori Development
- Minister of Conservation
- Minister for Arts, Culture and Heritage
- Associate Minister of Housing
- Minister for Sport and Recreation
- Minister for Tourism and Hospitality
- Minister for Energy
- Minister of Education

NOTE - This project lodged an application after 31 March 2026, therefore a 15-day comment period applies.

Dear Ministers,

Hon Chris Bishop, the Minister for Infrastructure (the Minister), has asked for me to write to you on his behalf.

The Minister has received an application from Oaks Living Limited for referral of the Waitiri Project under the Fast-track Approvals Act 2024 (the Act) to the fast-track process (application reference FTAA-2605-1240).

The purpose of the Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.

Invitation to comment on referral application

I write in accordance with section 17 of the Act to invite you to provide written comments on the referral application. I have provided summary details of the project below.

If you wish to provide written comments, these must be received by **return email** within **15 working days** of receipt of this email, being **16 July 2026**. The Minister is not required to consider information received outside of this time frame. Any comments submitted will contribute to the Minister's decision on whether to accept the referral application and to refer the project.

If you do not wish to provide comments, please let us know as soon as possible so we can proceed with processing the application without delay.

If the Minister decides to accept the application and to refer the project, the Applicant will need to complete any preliminary steps required under the Act and then lodge their substantive application for the approvals needed for the project. An expert panel will be appointed to decide the substantive application.

Process

The application documents are accessible through the Fast-track portal. Please note that application documents may contain commercially sensitivity information and should not be shared widely. If you haven't used the portal before, you can request access by emailing ftareferrals@mfe.govt.nz. Once you are registered and have accepted the terms and conditions, you will receive a link to view the documents. Existing users will be able to see application documents via the request when logging into the portal. Should you need for your agency to provide any supplementary information, a nominated person can be provided access to the portal, access can be requested by emailing ftareferrals@mfe.govt.nz.

To submit your comments on the application, you can either provide a letter or complete the attached template for written comments and return it by replying to this email, infrastructure.portfolio@parliament.govt.nz.

Before the due date, if you have any queries about this email or need assistance with using the portal, please email contact@fasttrack.govt.nz. Further information is available at <https://www.fasttrack.govt.nz/>.

Important Information

Please note that all comments received from Ministers invited to comment will be subject to the Official Information Act 1982. Comments received will be proactively released at the time the Minister for Infrastructure makes a referral decision, unless the Minister providing comments advises the Minister for Infrastructure's office they are to be withheld, at the time they are submitted.

If a Conflict of Interest is identified by the Minister providing comments at any stage of providing comments, please inform my office and the Cabinet Office immediately. The Cabinet Office will provide advice and, if appropriate, initiate a request to the Prime Minister to agree to a transfer of the project/portfolio invite to another Minister (a request to transfer a COI from one Minister to another can take 1-7 days).

Project summary

Project name	Waitiri Project
Applicant	Oaks Living Limited
Location	Gibbston Valley, Otago
Project description	The project includes the subdivision, construction, and establishment of residential, non-residential, and associated infrastructure and open space areas, including: a. subdivision and development of approximately 1,115 residential lots across a range of densities and typologies, including approximately 167 high-density lots, 209 medium-density lots, 393 low-density lots, 183 large lot residential lots, 114 rural living lots, and 49 rural lots b. subdivision and development of allotments to enable non-residential and community activities, including a resort precinct (approximately 3.96 ha), an 18-hole golf course, and approximately 2.63 ha of clubhouse and community hub space c. provision for community and service elements, including a village precinct incorporating approximately 7,200 m² of commercial gross floor area, a 2.10 ha school site, and approximately 6.15 ha identified as a cultural node for a conference centre and visitor accommodation d. provision and construction of supporting infrastructure and land use components, including a nursery (approximately 4.47 ha), solar farm (approximately 3.73 ha), and mitigation buffer (approximately 5.11 ha) e. establishment of an open space network of approximately 284 ha incorporating native restoration, revegetation, and mitigation planting f. provision and construction of infrastructure and transport elements to support the development, including an underpass across State Highway 6 to connect the north and south sides of the highway.

Kind regards,



Office of Hon Chris Bishop

Attorney-General | Minister of Housing | Minister for Infrastructure | Minister Responsible for RMA Reform | Minister of Transport | Associate Minister of Finance | MP for Hutt South

Office: 04 817 6802 | EW 6.3

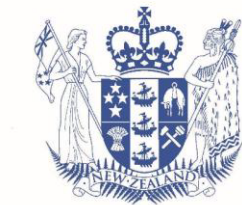
Email: c.bishop@ministers.govt.nz Website: www.Beehive.govt.nz
Private Bag 18041, Parliament Buildings, Wellington 6160, New Zealand

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Hon Nicola Willis

Minister of Finance
Minister for Economic Growth
Minister for Social Investment



20 July 2026

Hon Chris Bishop
Minister for Infrastructure
Parliament Buildings
Wellington

REQ-0035054

Dear Chris

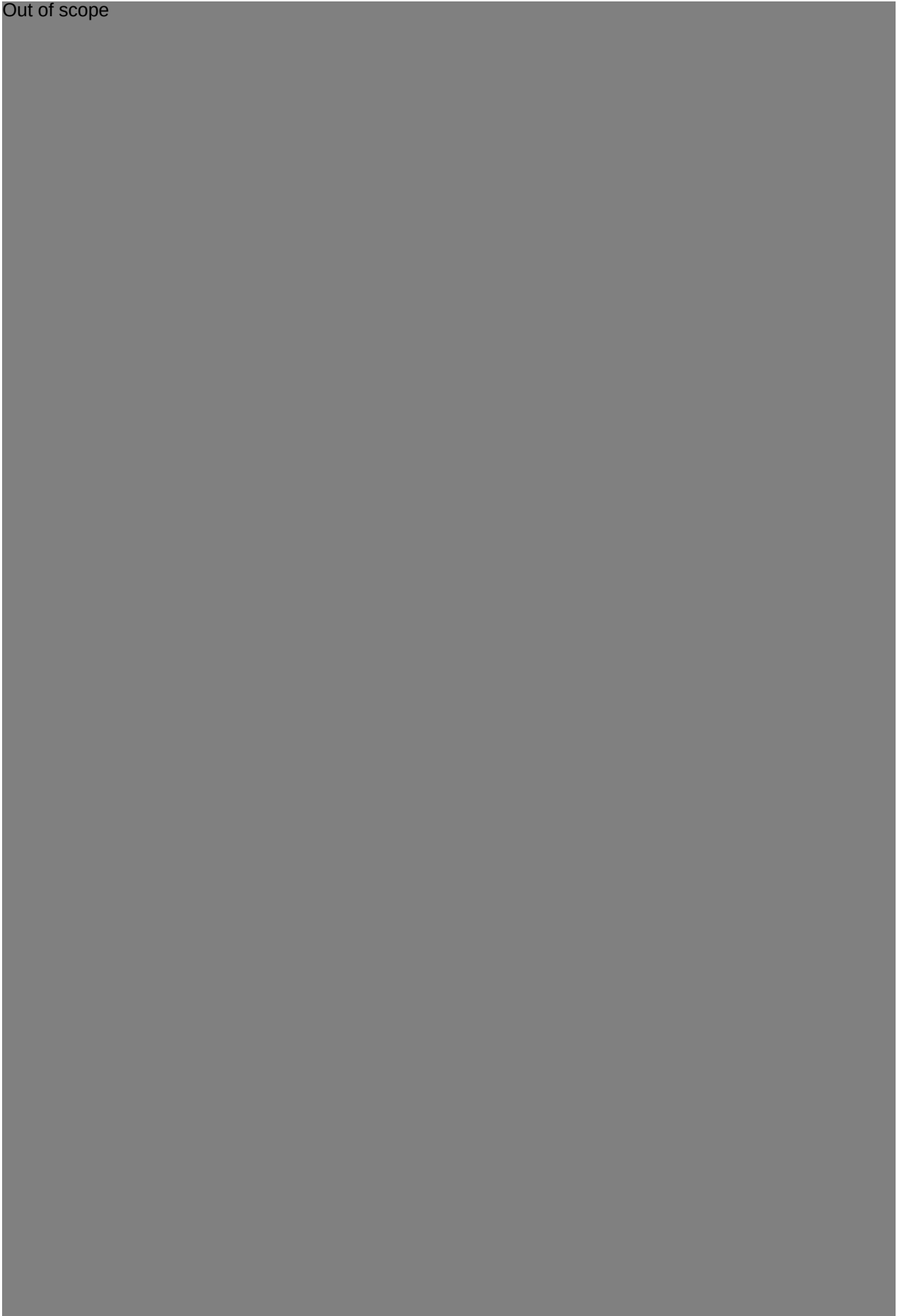
Thank you for the opportunity to comment under the Fast-track Approvals Act 2024 (the Act) on the following referral applications:

- Out of scope [redacted]
- Out of scope [redacted]
- Out of scope [redacted]
- Waitiri Project, FTAA-2605-1240
- Out of scope [redacted]
- Out of scope [redacted]
- Out of scope [redacted]

I am providing comment in my capacity as Minister for Economic Growth, focusing on whether these applications are likely to deliver significant economic benefits under section 22(2)(a)(iv) of the Act, based on the information provided in their referral applications.

Out of scope [redacted]

Out of scope



Out of scope



Waitiri Project, FTAA-2605-1240

The proposal is for the construction of a residential, commercial and community development in Gibbstown Valley, Queenstown. It includes the subdivision and development of approximately 1,118 residential lots, associated infrastructure and non-residential and open space areas including an 18-hole golf course and lodge, a commercial village and resort precinct, a school and a clubhouse/community hub and a solar farm.

According to the independent economic impact assessment provided by the applicant, the 11-year construction and development of the project would generate substantial economic impacts for Otago's economy. This includes an estimated \$1.11 billion GDP value-add to the region and an average of around 467 direct FTEs per year, with the peak development year employing 1,772 FTEs. Indirect and induced estimates of employment would generate an additional 521 FTEs per year in the same period. Total direct expenditure over this period is estimated at \$2.17 billion.

The assessment does not quantify long-term economic impacts beyond the development phase. However, it notes potential wider benefits including increased housing supply in Queenstown and improved housing choice and affordability in the region. Its non-residential components may also further support its tourism sector and increase economic activity and employment in the area.

In the short to medium-term, the primary benefit of this proposal is the substantial capital expenditure and employment generated during its construction and development phase. Over the longer term, the primary benefit is increased housing supply, which could support additional residential capacity and affordability in the region. This proposal may therefore be considered under s22(2)(a)(iii) of the Fast-track Approvals Act, to the extent that it would increase housing supply, address housing needs and contribute to a well-functioning urban environment in Queenstown.

Out of scope



Out of scope



Out of scope

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Nicola Willis', with a stylized flourish at the end.

Hon Nicola Willis
Minister for Economic Growth



Minister of Conservation
Minister for Māori Crown Relations
Minister for Māori Development
Minister for Whānau Ora
Associate Minister of Housing

By email: infrastructure.portfolio@parliament.govt.nz

Tēnā koe Minister Bishop,

Invitation to comment on the Waitiri Project under the Fast-track Approvals Act 2024

Thank you for the invitation to comment on the **Waitiri Project** under section 17 of the Fast-track Approvals Act 2024.

I have considered the application and its alignment with my portfolios as Minister for Māori Crown Relations: Te Arawhiti and Minister for Māori Development.

I support the application progressing and I encourage the applicant and the panel to have due regard to:

- relevant Treaty settlement legislation and instruments; and
- any feedback received from relevant Māori groups, as set out in the Treaty settlements and other obligations (Section 18) report prepared by the Ministry for the Environment.

Nāku noa, nā

Hon Tama Potaka

Te Minita mō Te Arawhiti me Te Minita Whanaketanga Māori
Minister for Māori Crown Relations: Te Arawhiti and Minister for Māori Development

Office of Hon Erica Stanford

Minister of Education
Minister of Immigration
Lead Coordination Minister for the Government's Response
to the Royal Commission's Report into Historical Abuse in
State Care and in the Care of Faith-based Institutions



03 JUL 2026

GEMS - 48874

Hon Chris Bishop
Minister for Infrastructure

Waitiri Project (Ref no: FTAA- 2605-1240)

Tēnā koe,

Thank you for the opportunity to comment on the Waitiri Project referral application.

While the Ministry has not been engaged to date on this project, we welcome the opportunity through the Fast Track Approvals process for this to occur.

Based on a high level review the project is expected to generate additional indicative student demand of ~200–300 students (subject to confirmation) and create additional student demand for both Arrowtown School and the wider Wakatipu school network. As the proposal represents growth not currently incorporated into school network planning this will require further analysis and alignment as the application progresses.

While a school site is identified within the project, its need and suitability have not yet been assessed by the Ministry. In this regard we would welcome engagement to support planning for education provision as early as possible, including consideration of site evaluations in accordance with Ministry processes if required.

Nāku noa, nā

Hon Erica Stanford
Minister of Education

Your written comments on a project under the Fast Track Approvals Act 2024

Project name	Waitiri Project
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All sections of this form with an asterisk (*) must be completed.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
*Portfolio	Tourism and Hospitality		
*First name	Ella		
*Last name	Stephens		
Contact person (if different from above)			
*Contact phone number	s9(2)(a)	Alternative	
*Email	s9(2)(a)		

2. Please provide your comments on this application
We have been asked to provide comments on behalf of the Minister for Tourism and Hospitality on Oaks Living Limited's application to use the fast-track process for the Waitiri Project. Accordingly, our comments focus solely on tourism and hospitality impact. The proposed development includes a lodge, resort, and an 18-hole golf course. The proposition states economic and employment benefits during the development phase, as well as the potential for the golf course and resort precinct to attract additional visitors, increase tourism expenditure, and encourage employment in the region. However, it does not quantify expected visitor numbers, visitor nights, tourism expenditure, tourism and hospitality roles, or regional dispersal benefits of the completed project. Instead, they are described as 'potential' benefits. Including analysis of expected quantitative measures such as those outlined above would help provide a clearer understanding of potential tourism and hospitality benefits to the region. The annual New Zealand Open has been a significant catalyst for golf tourism in the Queenstown Lakes region, which can support the development of new golf infrastructure. New Zealand and Queenstown have seen significant capital investment in Millbrook Resort

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and other new courses (e.g. Gibbston Valley Golf course), and there are currently eight golf courses in the region. However, it is unclear how the development of another golf course may further add value to the existing golf tourism offering.

Minister's signoff



Hon Louise Upston

Minister for Tourism and Hospitality

20260715

Date

Your written comments on a project under the Fast Track Approvals Act 2024

Project name	Waitiri Project
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All sections of this form with an asterisk (*) must be completed.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Department of Conservation (DOC)		
*First name	Ellanor		
*Last name	Babbage		
Postal address			
*Contact phone number	s9(2)(a)	Alternative	
*Email	Fast-track@doc.govt.nz s9(2)(a)		

2. Please provide your comments on this application
If you need more space, please attach additional pages. Please include your name, page numbers and the project name on the additional pages.

Note: All comments will be made available to the public and the applicant when the Ministry for the Environment proactively releases advice provided to the Minister for the Environment.

Manager's signoff



Linda Kirk

Linda Kirk
Fast Track Applications Manager

Date 07 July 2026

Director-General of Conservation s17 comments

Project name	Waitiri Project
Applicant name	Oaks Living Limited
Application number	FTAA-2605-1240
Project summary details	Development of: • 1, 115 residential lots; • non-residential activities including a resort precinct, visitor accommodation, clubhouse / community area, village precinct, school, cultural development node, a nursery and solar farm; • an open space network; and • provision of infrastructure and transport elements to support the establishment of the development over 5 distinct areas within the Gibbston Valley area. As part of this, the Applicant is seeking a Wildlife Act approval to enable the capture, handling, and relocation of lizards within the development area. This approval is understood to occur entirely on non-DOC managed land.

1 General comment

- 1.1.1 As the project includes an approval under a specified Act for which DOC is the administering agency (being the Wildlife Act 1953), the Applicant was required to notify and undertake pre-lodgement consultation in accordance with section 11 of the Fast-track Approvals Act 2024 (the FTAA).
- 1.1.2 Oaks Living Limited (the Applicant) engaged with DOC prior to lodging this application. Consultation was initiated on 13 March 2026 with DOC providing high level comments on 06 May 2026.
- 1.1.3 DOC notes that it is unclear if the Applicant will be using culverts or bridges to facilitate its stream crossings. If the Applicant chooses to use culverts, they will need to ensure that the culvert does not impede fish passage or apply for a freshwater fisheries approval.
- 1.1.4 DOC considers that the project is unlikely to have significant adverse effects, particularly if appropriate conditions are utilised. DOC has not identified any ineligible activity within the project, nor any reason for the Minister to decline the application under 21(5).

2 Minister's decision on referral application

- 2.1.1 FTAA sections 21 and 22 set out matters to be considered in determining whether a referral application should be accepted.

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2.1.2 DOC notes that other agencies are better placed to comment on most matters, including those in section 22. Comments below are therefore targeted to sections where DOC has specific interests or information relevant to the Minister's decision.

2.1.3 Section 21(3) and (4) set out when the Minister may/must decline a referral application. DOC has considered these criteria and comments as follows:

Section	Criteria	Comments
21(3)(b)	Does the project involve an ineligible activity	DOC has considered section 5(1)(h), (i), (j), and (k) of the FTAA. DOC has not identified any aspect of the Project that would be ineligible under these sections.
21(3)(c)	Is there adequate information to inform a decision	DOC considers that there is adequate information to evaluate the Project in terms of a referral decision.
21(4)	Are there any other reasons not specified	DOC has not identified any other reasons why the Project should not be referred.
21(5)(a)	Is the project inconsistent with: • a Treaty settlement; • Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019; • Marine and Coastal Area (Takutai Moana) Act 2011.	DOC has not identified any inconsistency with the Ngāi Tahu Claims Settlement Act 1998, or other obligation.
21(5)(b)	Would it be more appropriate to deal with the proposed approvals under another Act(s)	DOC has not identified any reason why the Wildlife Approval sought should not be dealt with under the FTAA.
21(5)(c)	Would the project have significant adverse effects on the environment	DOC considers that any adverse effects from the Project can be managed through appropriate conditions and management plans.
21(5)(d)	Does the applicant(s) have a poor compliance history under a specified Act	DOC is not aware of any compliance issues under the Wildlife Act 1953.
21(5)(g)	Would a substantive application have any competing applications	DOC has not identified any competing applications.

2.1.4 Section 22 sets out the criteria for the Minister for accepting a referral application. DOC has considered these criteria and comments as follows:

Section	Criteria	Comments
22(1)(b)(i)	Would referring the project to the fast-track process facilitate the project, including in a way that is more timely and cost-effective than under normal processes?	A Wildlife Act authority would generally take approximately three to four months to process, which is not significantly longer than the fast-track process is expected to take. However, there may be benefits for the applicant in terms of consideration being combined with RMA approvals (rather than being advanced by a separate process) and given the different decision-making framework under the FTAA.
22(2)(a)(ix)	Will this project address significant environmental issues?	The Project will not address significant environmental issues. However, as it is a wider development project it is not expected that the project would address significant environmental issues.
22(2)(a)(x)	Is the project consistent with local or regional planning document, including spatial strategies?	The Otago Conservation Management Strategy is not relevant to the FTAA consideration of the Wildlife Act approval. DOC does not consider that the Wildlife Act approval is inconsistent with its' planning documents.
22(b)	Any other matters the Minister may consider as relevant?	DOC has not identified any other matters the Minister may consider as relevant to this application.

3 Other considerations

3.1.1 DOC notes that once a referral decision is made, the scope of any subsequent substantive application is confined by that of the referral application. DOC has provided input to a number of fast-track projects to-date where additional conservation approvals that would have been available under the FTAA have not been included in an application. In some of these cases it has been necessary for applicants to seek additional approvals under the specified Acts via normal processing. This can result in inefficiencies, additional costs and undermining of the benefits of the 'one stop shop' approach the FTAA was designed to deliver.

3.1.2 DOC considers it may be beneficial for the Applicant to consider whether it should seek to include a freshwater fisheries approval on a precautionary basis. To this end, DOC suggests the Minister consider whether further information should be sought from the Applicant under s20 prior to making their decision to ensure all approvals in scope of the FTAA and necessary to implement the project are included.

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A handwritten signature in blue ink, appearing to read 'L. Kirk'.

Linda Kirk
Fast Track Applications Manager

Acting pursuant to delegated authority on behalf of the Director-General of Conservation.

Date: 07 July 2026

Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011



Comments on a referral application under the Fast Track Approvals Act 2024

Waitiri Project, FTAA-2605-1240

Contact Details	
Organisation Name	Heritage New Zealand Pouhere Taonga (HNZPT)
Contact person	HNZPT Fast-track Team
Contact Number	(04) 470 8053
Email	fasttrack@heritage.org.nz

General Comments

1. Oaks Living Limited (Applicant) has lodged an application for referral of the Waitiri Project (project) under the Fast-track Approvals Act 2024 (the FTA Act).
2. In accordance with section 17(1)(c) of the FTA Act, Heritage New Zealand Pouhere Taonga (HNZPT) has been invited to comment on the referral application as the administering agency for the Heritage New Zealand Pouhere Taonga Act 2014.
3. HNZPT has not been provided complete application documents that are relevant to the archaeological authority application and resource consent.
4. HNZPT comments as follows:

Consultation and Engagement

5. HNZPT were consulted via email on the project, commencing on the 13th of March 2026 at which time the applicant informed HNZPT that a full archaeological assessment would be completed if the project was referred to the substantive phase.

Archaeological Authority Application

6. The Applicant has provided an archaeological appraisal that identifies recorded archaeological sites within several of the proposed development areas. The works proposed as part of the project have the potential to modify or destroy recorded sites, and there is potential to encounter further archaeological material or sites. As such, an archaeological authority is required prior to those works commencing.
7. The project area sits within a landscape that is significant to Ngai Tahu Whaanui and Ka Runaka.
8. HNZPT notes that the applicant has engaged with Ngai Tahu Papatipu Runaka with shared interests in Tahuna collectively referred to as Ka Runaka. If the application is referred



engagement with Ka Runaka should be on-going as the substantive application develops and should include consultation regarding the archaeological authority application.

9. HNZPT notes that no Cultural Impact Assessment has been provided with this application. The applicant should explore commissioning a report to understand the cultural impacts of this development and how these can be mitigated.

Effects on Archaeological Values

10. In order to mitigate the adverse effects on archaeological values, a suite of conditions will be required.
11. This has not been discussed with the Applicant. HNZPT's list of generic draft conditions was sent through to the applicant to look at.

Resource Consent Application

12. The Applicant is applying for a resource consent which may generate effects on historic heritage.
13. The Karapuke/Drystone and Taiheke/Riverside project areas of the development hold multiple historic heritage sites that are recognised on the Operative and Proposed Queenstown Lakes District Plan (QLDC Plan), and one Listed Historic Place recognised on the New Zealand Heritage List/Rārangi Kōrero (the List).
14. The Karapuke/Drystone project area has one significant historic heritage item, the Gibbston school teachers house (Scheduled Heritage Item #235). The house is a pre-1900 structure that is also a protected archaeological site under the Heritage New Zealand Pouhere Taonga Act 2014.
15. The Taiheke/Riverside project area has recognised heritage items within both the List and the QLDC Plan. Rum Currie's Hut (Scheduled Heritage Item #236) is located near the northern boundary of the project area. However, according to the Planning Document provided, this appears to sit outside the project area. Rum Currie's Hut is also a protected archaeological site under the HNZPTA. Tomanovitch Cottage within the proposed masterplan 'Cultural Development Node' (Scheduled Heritage item #79, HNZPT List #7595 Category 2) is recognised due to its social and historical significance, citing its unusual fifty-year period of occupation, which was not common for many single roomed mud brick huts in the Otago region.

Effects on Historic Heritage Values

16. A Heritage Impact Assessment has not been provided as part of the referral application. The planning report notes that no works are proposed around the heritage buildings or vegetation or their settings. They will be considered within the design as such, effects on heritage features will be minimised or avoided.
17. HNZPT recommends that a Heritage Impact Assessment, should be prepared by a suitably qualified heritage expert to show the location and methods for avoidance of identified historic heritage items and inform design.



Conclusion

18. If the project is referred, HNZPT anticipates further engagement with the Applicant to ensure all relevant documentation is provided with a substantive application, including:

- A fulsome archaeological assessment;
- A heritage impact assessment;
- Appropriate methodologies and strategies proposed;
- Appropriate draft management plan and research strategy;
- Evidence of appropriate consultation with Tangata Whenua; and
- Appropriate proposed conditions.

Your written comments on a project under the Fast Track Approvals Act 2024

Project name	Waitiri Development
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All sections of this form with an asterisk (*) must be completed.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	New Zealand Transport Agency		
*First name	Nicola		
*Last name	Foran		
Postal address			
*Contact phone number	s9(2)(a)	Alternative	
*Email	environmentalplanning.nzta.govt.nz		

2. Please provide your comments on this application
NZTA thanks the Minister for the opportunity to comment on the referral of this application into the Fast Track approvals process. NZTA has had pre-application engagement with the applicant regarding the early stage of this project. As per the matters set out in the invitation to comment, NZTA provides the following commentary: 1. Impacts on the nature, scale and location of the proposal: NZTA considers that the nature, scale and location of the proposed development have the potential to result in significant adverse effects on the state highway network, specifically from a wider network view of the transport system. From a strategic transport planning perspective, the proposal represents substantial greenfield urban expansion in a location that is not identified within current strategic growth planning documents for the wider Queenstown area. The site is located outside existing urban areas and has limited access to employment, education, retail and community services. As stated in the applicant's transport assessment, opportunities for walking, cycling and public transport are

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constrained due to the distance from established urban centres, such as Frankton and Queenstown, and the rural nature of the surrounding environment.

The Queenstown Transport Business Case (QTBC) identified that future growth cannot be accommodated through additional road capacity alone and that increased reliance on public transport, active modes and travel demand management will be required to achieve a sustainable transport network. In contrast, the proposed development is likely to generate a high level of private vehicle dependency, resulting in increased demand on State Highway 6 (SH6) and the wider transport network.

While the transport assessment suggests a significant proportion of trips will travel east towards Cromwell, NZTA considers that further evidence is required to support this assumption. In NZTA's view, Frankton is likely to remain the primary destination for employment, commercial and community services, resulting in substantial travel demand through the SH6 corridor west of the site. This results in concerns regarding the dependency of private vehicle use and therefore not meeting the outcomes identified in the QTBC to achieve a sustainable transport network.

2. Proposed connections to State Highway 6 and Integrated Traffic Assessment requirements:

NZTA considers that the transport assessment identifies the potential effects of the proposed development on the section of SH6 immediately adjacent to the site, along the Gibbston Highway, and that the assumptions adopted at this stage are generally appropriate for a referral application.

NZTA supports minimising the number of direct accesses onto SH6 to support the safe and efficiency operation of the state highway network. The proposal has several new connections directly to SH6 from four of the five development sites identified within the referral application. These are primarily via new intersections servicing each development site, or minor shared access arrangements. NZTA has not undertaken a detailed assessment of the proposed access arrangements, including specific mitigation, and cannot determine at this stage whether this will adequately address the direct effects of the development on the state highway network.

NZTA expects that a comprehensive Integrated Transport Assessment (ITA) will accompany the substantive application. The ITA should assess the operational and safety effects of each of the proposed accesses, identify the form and extent of any mitigation works required to maintain the safe and efficient function of the state highway, and evaluate the cumulative effects of the development on both the adjacent section of SH6 and the downstream effects on the state

highway and local transport network. The ITA should reflect both NZTA guidance¹ and the Auckland Transport Integrated Transport Assessment guidelines².

Any transport mitigation measures or upgrades proposed on, or effecting, the state highway network will require approval from NZTA as the Road Controlling Authority and will need to be designed in accordance with NZTA standards and requirements.

3. General Comments on the referral application:

NZTA's primary concern relates to the potential downstream and cumulative effects of the proposal on SH6 and the wider Queenstown transport network.

The proposal is not currently anticipated through the Queenstown Lakes spatial growth framework and would introduce a substantial population into an area that is currently rural and largely dependent on private vehicle travel. The absence of existing or planned public transport services, together with limited access to employment and services within walking or cycling distance, is likely to result in significant travel demand on the state highway network.

Although the applicant's transport assessment concludes that many trips are likely to be directed towards Cromwell and areas east of Ladies Mile, as discussed above, NZTA consider it's likely that Frankton will continue to remain the primary employment, education, commercial and service centre for many residents. As a result, the proposal is likely to increase travel demand along SH6, including the Ladies Mile corridor, Shotover River Bridge and Frankton area.

These parts of the state highway network already experience congestion, delays and travel time unreliability during peak and inter-peak periods. NZTA notes that significant urban growth is anticipated within the receiving environment of Morven Ferry and Ladies Mile, where approximately 2,400–6,500 additional residential lots are either enabled or proposed through existing planning and Fast-track processes. The cumulative impact of the proposed Waitiri development, in combination with this growth, has the potential to further reduce network performance, increase vehicle queuing and exacerbate congestion on key sections of SH6.

NZTA is also concerned that development occurring outside identified growth areas may compromise the planned sequencing of urban development across the wider Queenstown area and it has not considered the costs of compromising planned growth in Queenstown. Strategic planning documents have sought to align future growth with planned infrastructure investment and transport network improvements. Development that is unanticipated within those growth strategies may create demand for additional transport infrastructure upgrades that are currently unplanned and unfunded, potentially increasing the cost and complexity of delivering transport

¹ NZTA Planning Policy Manual, Integrated Transport Assessment Guide, NZ Transport Agency operational transport and land use planning guidance, 17 June 2026.

² Auckland Transport (AT) Integrated Transport Assessment Guidelines (Version 2, 2025)

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infrastructure necessary to support both the proposed development and future planned growth areas.

Overall, NZTA considers that the proposal may have significant downstream transport effects that extend well beyond the immediate site frontage and should be carefully assessed through any substantive application. The proposed development is unnecessary as there is existing zoned land for residential development beyond the projected demand for the Queenstown area.

NZTA would expect that the substantive application includes a comprehensive Integrated Transport Assessment; that includes, but is not limited to the following:

- i. Identifies the existing capacity of the local road network and SH6 to service traffic associated with both the project while it is carried out and the resulting development; and
- ii. Identifies potential cumulative effects of the substantial greenfield urban expansion not identified within current strategic growth planning documents for the wider Queenstown area on the local road network and SH6; and
- iii. Identifies any upgrades to the local road network and SH6 that are required to service the traffic identified in (i) and mitigate any cumulative effects identified in (ii); and
- iv. Identifies any funding required to carry out those upgrades (including who will provide that funding); and
- v. Contains information on discussions held, and agreements made, between the authorised person and QLDC or NZTA (or both) about transport infrastructure (including discussions and agreements about the matters referred to in subparagraphs (i) to (iv)).

For the assessment of national and regional benefits the applicant should also consider the wider economic costs if the development was to proceed.

Note: All comments will be made available to the public and the applicant when the Ministry for the Environment proactively releases advice provided to the Minister for the Environment.

Managers signoff



Nicola Foran

Date 16/07/2026

Your written comments on a project under the Fast Track Approvals Act 2024

Project name	FTAA-2605-1240 Waitiri Project
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All sections of this form with an asterisk (*) must be completed.

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name (if relevant)	Aukaha (1997) Limited		
*First name	Tim		
*Last name	Vial		
Postal address	PO Box 446, Dunedin, 9054		
*Contact phone number	s9(2)(a)	Alternative	s9(2)(a)
*Email	s9(2)(a)		

2. Please provide your comments on this application
If you need more space, please attach additional pages. Please include your name, page numbers and the project name on the additional pages.

Note: All comments will be made available to the public and the applicant when the Ministry for the Environment proactively releases advice provided to the Minister for the Environment.

Please refer to the attached letter.

Managers signoff



Cory Neale, Chief Executive

Date: 16th July 2026

16 July 2026

Environmental Protection Authority
Private Bag 63002
WELLINGTON 6140

Email: info@fasttrack.govt.nz

Tēnā koe

Referral – FTAA-2605-1240 – Waitiri Project – Response

The Application

Aukaha understands that the Waitiri Project involves a master-planned mixed-use development across five interrelated project areas within the Gibbston Valley, Queenstown.

Relevant Māori Group – Fast Track Approvals Act 2024

Aukaha is a mana whenua-owned organisation that delivers services across the takiwā of our Kāi Tahu Papatipu Rūnaka shareholders. The relevant Papatipu Rūnaka for this project are:

- Te Rūnanga o Moeraki:
- Kāti Huirapa Rūnaka ki Puketeraki
- Te Rūnanga o Ōtākou
- Hokonui Rūnanga

The interests of Kāi Tahu ki Otago in Tuawhenua (Queenstown Lakes and Central Otago) and along the Mata-au are shared with Ngāi Tahu ki Murihiku.

Aukaha is an entity that has relevant interests in the application as we represent the papatipu rūnaka on environmental and other policy matters in the project area.

Response

Aukaha has reviewed the referral application for the Waitiri Project and notes that preparation of the substantive application will involve further detailed technical assessment and engagement with the Papatipu Rūnaka.

Aukaha further notes the view of the Papatipu Rūnaka that a Treaty Settlement Impact Assessment must be completed prior to submission of a substantive application for the Waitiri Project.

Aukaha reserves its position on the Waitiri Project. If the project is referred, we will engage with the Papatipu Rūnaka on the cultural impacts of the substantive project, including the impacts on the Ngāi Tahu Treaty Settlement.

Please contact Aukaha's Kaiwhakamahere Matua (Senior Planner), Tim Vial, if you require further clarification.

Nāku noa, nā

A handwritten signature in black ink, appearing to read 'Cory Neale', written in a cursive style.

Cory Neale
Chief Executive
Aukaha



FDB002186G7H6



Waitiri Project



[Kāti Huirapa Rūnaka ki Puketeraki - invite to comment - Waitiri Project](#)

Tēnā koe e te Minitā

Kāti Huirapa Rūnaka ki Puketeraki is acknowledged as having mana whenua status alongside Te Rūnanga o Moeraki, Te Rūnaka o Ōtākou, Hokonui Rūnanga, Te Rūnaka o Awarua, Waihōpai Rūnaka, and Ōraka-Aparima Rūnaka in the location that is the subject of this referral application.

The area has significant cultural significance to Kāi Tahu and Puketeraki with our tīpuna using a ara tawhito (trail) on the northern bank of the Kawarau to access Whakatipu wai-māori. The Kawarau awa is an important water resource. The site forms part of a wider cultural landscape that encompasses the mountain ranges, valley floors through to the Kawarau River incised through the centre of the valley.

In advance of the submission of the referral application, Puketeraki alongside the Papatipu Rūnanga noted above have entered into a Process Agreement with the Applicant. The Process Agreement is not a relationship agreement but rather a basis for engagement through the remainder of the Fast Track process.

In this case, the Applicant has engaged constructively with the Papatipu Rūnanga in respect of the Referral Application. Appendix L of the Referral Application sets this out in more detail.

With consultation in respect of the proposed substantive application including the nature of the project, its effects, and the proposed mitigations yet to commence, Puketeraki has yet to form a fully informed view on the merits of the Project.

In the interest of an efficient Fast Track Approvals Act process, we would ask the Minister to require that consultation with mana whenua is completed, and a Treaty Settlement Impact Assessment is finalised before the Applicant submits their substantive application.

Nāku noa, nā

Shane Ellison



Te Rūnanga o Moeraki
Tenby St
Moeraki
Rd 2 Palmerston 9482

Tēnā koe e te Minitā

Re: Waitiri Project – Oaks Living

Te Rūnanga o Moeraki is acknowledged as having mana whenua status alongside Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnaka o Ōtākou, Hokonui Rūnanga, Te Rūnaka o Awarua, Waihōpai Rūnaka, and Ōraka-Aparima Rūnaka in the location that is the subject of this referral application.

The area has significant cultural significance to Kāi Tahu and Puketeraki with our tīpuna using the ara tawhito (ancient trail) on the northern bank of the Kawarau to access Whakatipu wai-māori. The Kawarau awa is an important water resource. The site forms part of a wider cultural landscape that encompasses the mountain ranges, valley floors through to the Kawarau River incised through the centre of the valley.

In advance of the submission of the referral application, Te Rūnanga o Moeraki alongside the Papatipu Rūnanga noted above have entered into a Process Agreement with the Applicant. The Process Agreement is not a relationship agreement but rather a basis for engagement through the remainder of the Fast Track process.

In this case, the Applicant has engaged constructively with the Papatipu Rūnanga in respect of the Referral Application.

With consultation in respect of the proposed substantive application including the nature of the project, its effects, and the proposed mitigations yet to commence, Te rūnanga o Moeraki has yet to form a fully informed view on the merits of the Project.

In the interest of an efficient Fast Track Approvals Act process, we would ask the Minister to require that consultation with mana whenua is completed, and a cultural impact assessment is finalised before the Applicant submits their substantive application.

Nāku nei, nā

A handwritten signature in black ink, appearing to be "Trevor McGlinchey", is located below the text "Nāku nei, nā".

Trevor McGlinchey,
CEO, Te Rūnanga o Moeraki