Infrastructure Assessment Report

Corbridge Golf Course Resort

Applicant	SIO No12 Limited
Patersons Ref	P250991
Date	20/08/2026

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1. The Site

The subject site is located approximately 5.5km from Luggate township and 6.8km southeast of Wānaka. Access is provided via the Wānaka–Luggate Highway (SH6) through an existing entranceway, which includes provision for a future right-turn bay to service the proposed development.

The surrounding environment is predominantly characterised by large areas of undeveloped rural farmland, rural lifestyle / residential activity, and the Wanaka Airport. The southern boundary of the site fronts SH6, while the northern extent is defined by the Clutha River / Mata-Au. The land has historically been utilised for grazing livestock and growing crop

The subject site comprises moderate rolling topography, with existing ground levels of approximately RL340 -350m adjacent to SH6, rising to RL360 - 380m in the northern portion of the site. The landform then falls steeply toward the Clutha River, at approximately RL270m.

A natural low-lying area is present near the centre of the-southern portion of the site, at approximately RL323m. This depression currently captures and attenuates runoff from the majority of the site catchment.

The underlying geology comprises glacial till soils of variable depth overlying outwash gravels. These gravels are exposed along the true right bank of the Clutha River immediately north of the site, indicating the presence of highly permeable strata within the wider area.

The hydrological soil group, a measure of infiltration capacity, is B, indicating moderate to well drained soils.

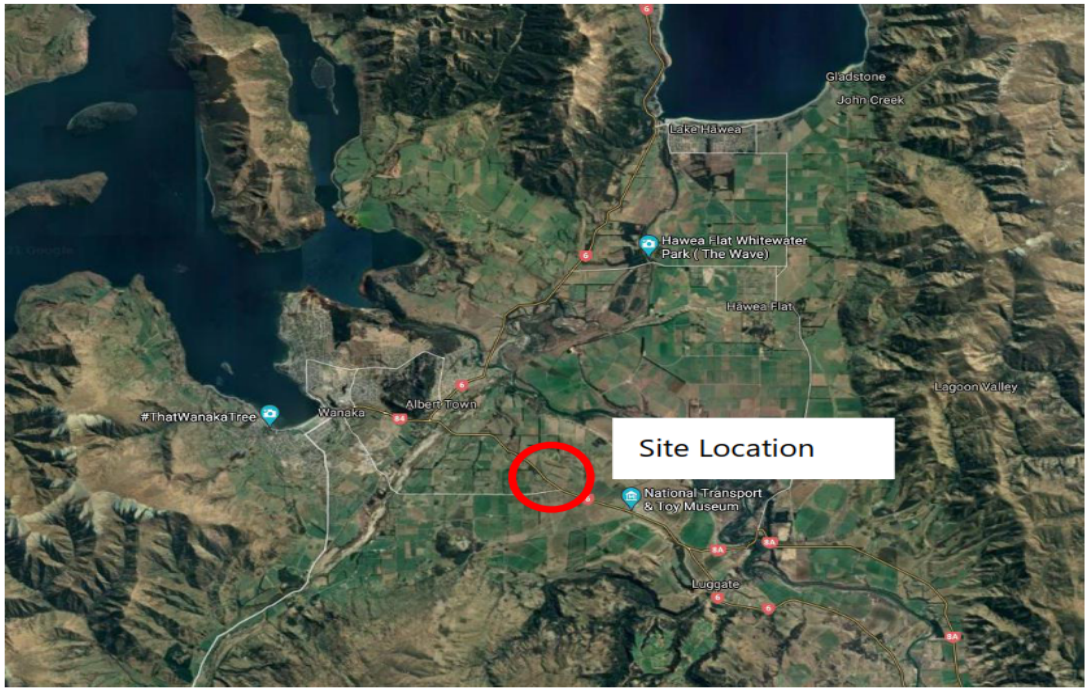

Figure 1: Site Location (general location circled in red)

2. Project Details

Site Location	707 Wanaka-Luggate Highway, Wānaka
Legal Description	Section 1 Block II Lower Wanaka SD Part Section 64 Block IV Lower Wanaka SD Section 65 Block IV Lower Wanaka SD Section 66 Block IV Lower Wanaka SD Section 67 Block IV Lower Wanaka SD
Record of Title	OT14C/457 OT17A/336
Area	Approximately 322.025 ha

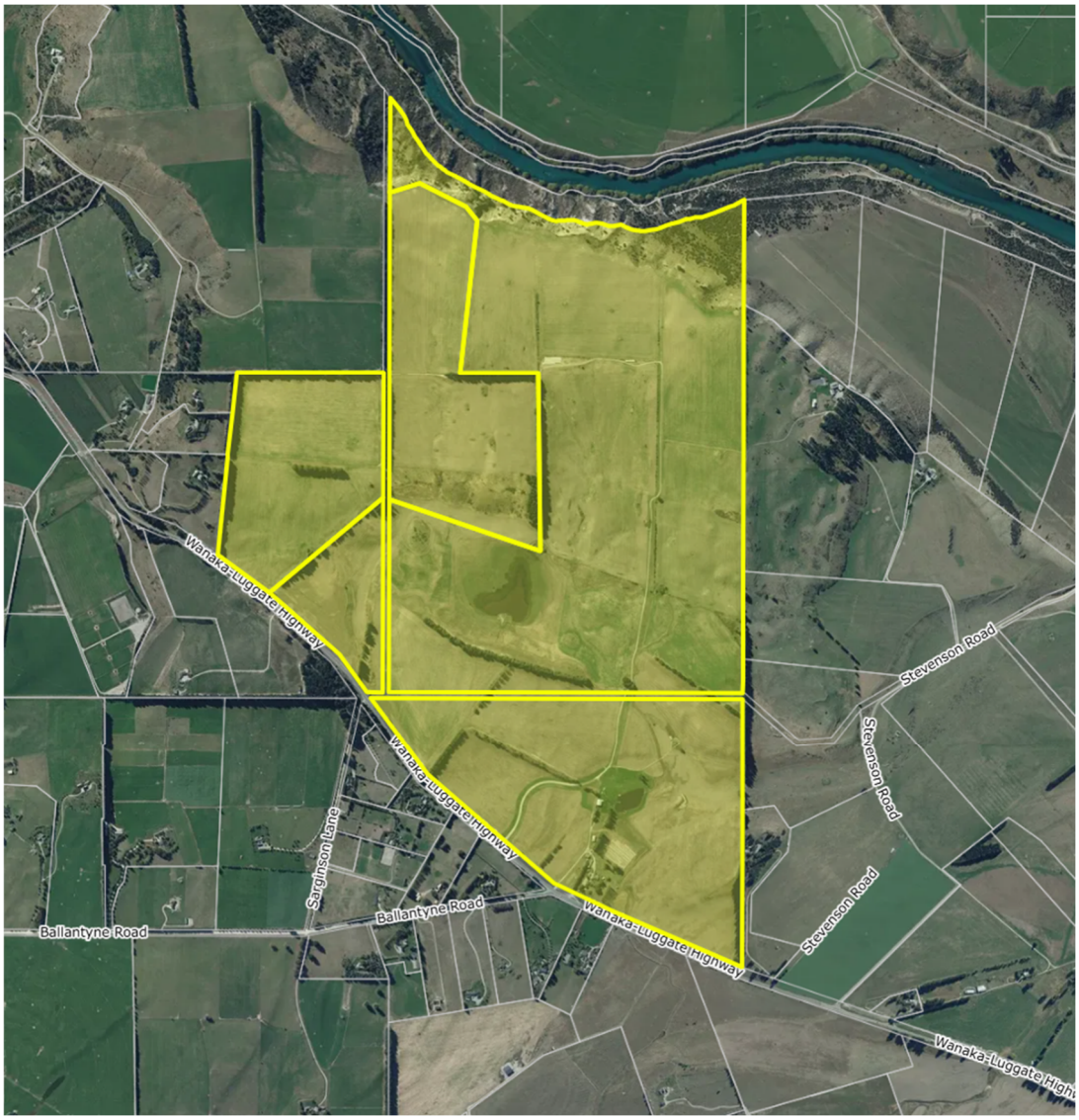

Figure 2: Site Extent and Location

3. Proposed Development

The proposed development, as sought by the Private Plan Change involves the establishment of a golf course resort across the entirety of the site at 707 Wānaka–Luggate Highway. The resort will incorporate a range of recreational, residential, and operational facilities, including:

- Two 18-hole championship golf courses and a 9-hole short course
- Driving range facilities
- Clubhouse
- Members' restaurant
- Maintenance compound
- Visitor Accommodation activities
- Residential lots
- Staff accommodation

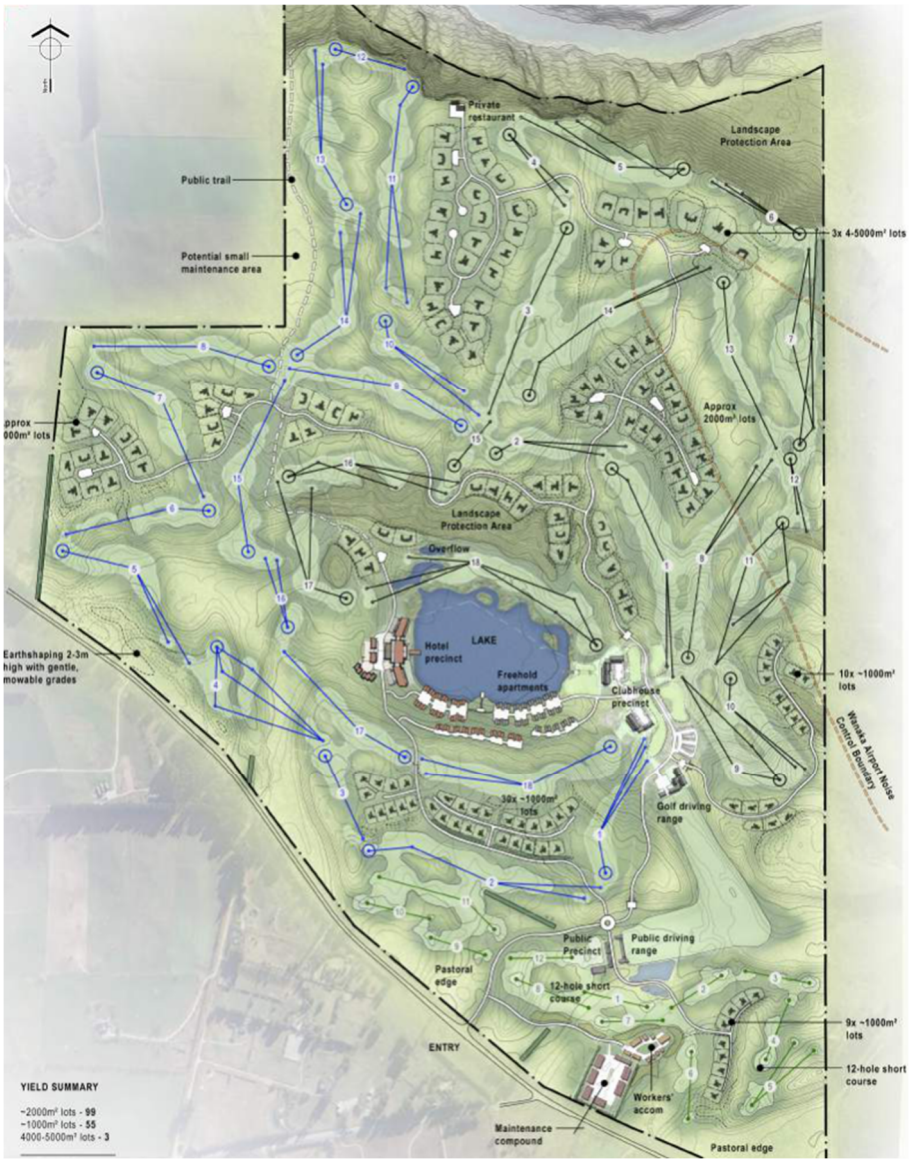

Figure 3: Concept plan (Baxter Design Group)

3.1 Scope

Patersons has been commissioned by SIO No 12 Ltd to undertake an assessment of infrastructure requirements associated with the proposed Corbridge Golf Resort development at 707 Wānaka–Luggate Highway, Wānaka.

The proposal comprises a large-scale golf resort development including golf courses, visitor accommodation, residential activities, and associated infrastructure.

The following infrastructure components have been assessed as part of this report:

- Geotechnical review
- Earthworks
- Roading
- Stormwater drainage
- Wastewater drainage
- Water supply
- Electricity and telecommunications supply

3.2 Assumptions

This assessment is based on the proposed development Indicative Masterplan drawing 4541-SK49 dated 6 August 2026 provided by Baxter Design.

The investigation at this stage is a high-level assessment only and the specific detail around each component of the future development at the site is not yet fully known.

3.3 Design Standards

The following design standards and guidelines have been adopted, in full or in part, in the preparation of this Infrastructure Assessment Report:

- Queenstown Lakes District Council (QLDC) – *Land Development and Subdivision Code of Practice (2025)*
- Auckland Regional Council Technical Publication No. 58 (TP58) – *Onsite Wastewater Systems*
- AS/NZS 1547:2012 – *On-site Domestic Wastewater Management*
- SNZ PAS 4509:2008 – *New Zealand Fire Service Firefighting Water Supplies Code of Practice*

These standards have informed the assessment and preliminary design of infrastructure across the site, including stormwater, wastewater, water supply and fire-fighting provisions.

4. Geotechnical Review

4.1 Geotechnical Investigations

GeoSolve Ltd have undertaken a detailed geotechnical investigation of the site, documented in "Geotechnical Investigation – Corbridge Golf Resort" dated 3 June 2026 (GeoSolve Ref: 250417). The purpose of the investigation was to assess subsurface conditions, identify any geotechnical constraints, and provide recommendations to inform the proposed development.

The conclusions and recommendations of the GeoSolve report are summarised below:

- Based on the site investigations and natural hazard assessment discussed above, the proposed development areas are considered to be at low risk for geotechnical hazards. A minor level of geotechnical hazard may be present at isolated locations within the proposed development area, and site-specific investigation and assessment will be required to assess building platform and structure locations. However, we consider that the extent and degree of any such hazards will be minor, such that they can be readily mitigated by standard planning and engineering measures.

- The stratigraphy at the site typically comprises topsoil overlying loess/colluvium overlying outwash gravel, fluvial sediments and glacial till.

- No groundwater seepage was observed during site investigations.

- No evidence of existing slope instability has been identified on site, however localised slope instability was observed on the slope crest and slope above the Clutha River/Mata-au during the site inspection. Minor scouring of the terrace slope on the alignment of the water race was also observed during a site walkover inspection.

- Recommendations for temporary and permanent batter slope angles are described in Section 6.4 of the geotech report. Slopes that are required to be steeper than those described should be structurally retained or subject to specific geotechnical design.

- The colluvium, glacial till, outwash and fluvial sediments are considered suitable for use as engineered fill (during earthworks season and in accordance with an earthfill specification).

- All unsuitable soils identified in foundation excavations, particularly those softened by exposure to water, should be undercut and replaced with engineered fill during construction.

- Any fill that is utilised as bearing for foundations or to form building platforms/residential lots should be placed and compacted in accordance with NZS 4431:2022 and certification provided to that effect.

- For detailed design purposes it is recommended that the site is classified "Class D – Deep subsoil" in accordance with NZS 1170.5:2004 seismic provisions.

- Additional investigations will be required at detailed design stage. Recommendations for geotechnical investigations are detailed within Section 6.10 of the geotech report.

The geotechnical assessment did not identify any areas of concern in relation to overall ground stability across the site. While minor localised geotechnical hazards may be present, these are considered low risk and can be readily managed through standard engineering design and construction practices. Overall, the site is considered suitable for the proposed development, with favourable ground conditions, appropriate soil structure, and generally stable landforms.

5. Earthworks Assessment

5.1 Proposed Earthworks

The proposed development will require bulk earthworks to facilitate the establishment of the golf course, residential areas, visitor accommodation, and supporting infrastructure. Bulk earthworks for the proposed development are expected to involve the following key components:

- Construction of landscape and visual mitigation bunding.
- Construction of access roads, comprising the extension of the existing entry road and the formation of new internal roading throughout the site
- Shaping of fairways and golf greens, including associated bunding and contouring to suit playability and landscape integration
- Formation of golf cart access tracks, either adjacent to or independent of the main roading network
- Excavation and shaping of the central lake and associated ponds, contributing to both amenity and stormwater management
- Preparation of building platforms for key structures including the clubhouse, and visitor accommodation complexes
- Establishment of suitable ground levels for the proposed fairway-style and residential lots to ensure appropriate drainage, access, and integration with surrounding landforms

A key feature of the earthworks design is the formation and enhancement of a central feature lake within the existing low-lying depression on the site. This area will be earthworked to establish a permanent waterbody that functions as both a landscape amenity and a stormwater management feature.

The findings of the GeoSolve geotechnical investigation support the feasibility of undertaking earthworks across the entire site and confirm that the underlying soils are generally suitable for future development. The site is considered to be at low risk from geotechnical hazards, with only minor localised hazards potentially present that can be readily mitigated through standard engineering design and construction practices.

The subsurface conditions typically comprise topsoil overlying loess and colluvium, underlain by outwash gravels, fluvial sediments, and glacial till. No groundwater seepage was encountered during site investigations, and no evidence of widespread slope instability has been identified across the site. Localised erosion and minor instability features were observed along the terrace slope above the Clutha River / Mata-Au, which can be addressed through appropriate design controls where required.

The identified soils are generally suitable for reuse as engineered fill, provided they are placed and compacted in accordance with an appropriate earthworks specification. Any unsuitable or softened material encountered during construction will be removed and replaced with engineered fill. Fill material used to form building platforms will be placed and compacted in accordance with NZS 4431:2022, with certification provided.

Earthworks design will adopt appropriate batter slopes in accordance with geotechnical recommendations. Where steeper slopes are required, these will be subject to specific geotechnical

design or structural retention. For seismic design purposes, the site is recommended to be classified as Class D (deep or soft soil) in accordance with NZS 1170.5:2004.

Given the naturally rolling topography of the site, it is anticipated that the proposed earthworks will align closely with the existing landform, minimising the extent of cut and fill and maintaining a visually integrated outcome.

Earthworks are expected to be undertaken in staged construction packages aligned with the overall development staging.

Additional site-specific geotechnical investigations will be undertaken at detailed design stage to refine foundation design parameters, confirm local ground conditions, and inform the final earthworks design.

5.2 Environmental Management Plan

An Environmental Management Plan (EMP) will be prepared prior to the commencement of earthworks to manage potential environmental effects associated with construction activities. The EMP will outline procedures and mitigation measures to control erosion and sediment generation, manage construction runoff, minimise dust emissions, and address construction noise and vibration where required.

Erosion and sediment controls are expected to include measures such as silt fencing, sediment retention ponds, diversion channels, and stabilised entry/exit points. Particular attention will be given to managing runoff toward the central low-lying area, ensuring that sediment-laden water is appropriately treated prior to infiltration into underlying soils.

The majority of site runoff is expected to be contained within the site boundaries, either within the central depression area or within other localised low points across the site. As a result, there is anticipated to be little to no discharge of runoff beyond the site, including at the northern extent adjacent to the Clutha River / Mata-Au. This containment approach supports the overall stormwater management strategy and significantly reduces the potential for off-site environmental effects.

Dust suppression measures, including the use of water carts and surface stabilisation techniques, will be implemented as required during dry conditions.

The EMP will also include protocols for protecting adjacent land uses, the SH6 corridor, and the nearby Clutha River / Mata-Au from potential adverse environmental effects during construction.

The EMP will be developed in accordance with relevant guidelines and will be implemented throughout the construction period, with monitoring and maintenance procedures in place to ensure its ongoing effectiveness.

5.3 Earthworks Summary

The proposed development will require bulk earthworks to establish the golf course, residential areas, visitor accommodation, and associated infrastructure. Works will include shaping of fairways, formation of building platforms, construction of internal roads, and development of a central lake feature.

The central depression will be enhanced to form a permanent lake, providing both amenity and stormwater management functions.

Geotechnical investigations confirm that the site is suitable for development, with generally favourable ground conditions and no significant constraints to earthworks.

Overall, the proposed earthworks are considered appropriate for the scale and nature of the development and will support the efficient delivery of supporting infrastructure while maintaining the natural character of the site.

6. Roading

6.1 Scope of Road Design Statement

The following Road Design Statement provides an overview of the proposed roading infrastructure required to service the Corbridge Golf Resort development. The assessment focuses on the geometric layout and engineering design characteristics of the roading network, including carriageway widths, cross-sections, and integration with pedestrian, cycling, and golf cart movements.

A separate Transportation Assessment has been prepared to assess traffic generation and wider network effects associated with the development. Accordingly, this section does not assess traffic effects and instead focuses on the technical design and functionality of the proposed roading infrastructure.

All internal roads within the development are proposed to remain in private ownership and will be designed to suit the operational requirements of a low-speed resort environment.

6.2 Site Entrance

Access to the site is provided directly from the Wānaka–Luggate Highway (SH6) via a formally established crossing point. The existing entrance was upgraded under previous resource consent RM120572 to accommodate future development of the site expected at that time. These works included sealed widening to allow for a future right-turn bay for vehicles entering the site from SH6 (Wānaka / NW-bound), along with a left-hand entry taper (Luggate / SE-bound).

Figure 4 – Existing site entrance

The initial 480 metres of the internal entry road have been constructed to a sealed carriageway width of approximately 6.0m, flanked by grassed swales for stormwater management. This route forms the primary internal access spine for the development and will be extended to provide connectivity to residential activity areas, visitor accommodation areas, golf course facilities, and the clubhouse.

At the time of construction, minimal pavement marking was installed at the site access in accordance with guidance from NZ Transport Agency (NZTA). It was advised that full right-turn bay markings would only be required once traffic volumes warranted their activation. In line with this approach, it is anticipated that additional marking of the right-turn bay, and the potential formation of a left-turn bay, will be implemented prior to building occupancy or at the time of subdivision, if required based on traffic volumes.

The upgraded access has been designed with the long-term development of the site in mind. The inclusion of a right-turn bay improves safety by reducing conflicts with through traffic on SH6, while the widened entry arrangement allows for safe and controlled ingress and egress movements. The layout is consistent with accepted NZTA / AustRoads design standards for rural state highway access points.

Visibility at the site entrance is generally very good in both directions along SH6, and the provision of turning infrastructure supports the safe and efficient operation of the intersection. The performance of the intersection and wider traffic effects associated with the development are addressed separately within the Transportation Assessment, which also addresses the new NZTA Planning Policy Manual and the potential need for a roundabout in this location.

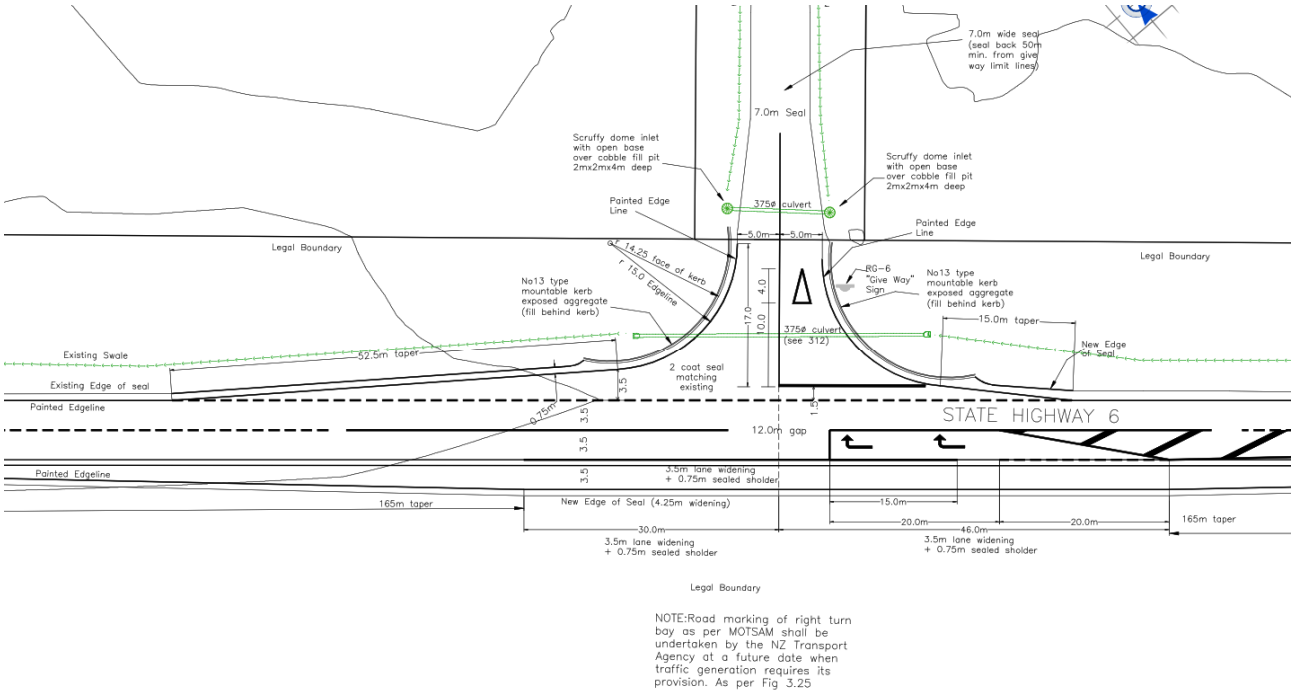

Figure 5 – Existing site entrance right turn bay design

6.3 Access Roads

The internal roading network is based around a primary access route, formed by the extension of the existing entrance road which currently extends approximately 480m into the site. This route will act as the primary access spine and provide connectivity to residential areas, visitor accommodation, golf course facilities, and the central clubhouse. The primary access will intersect parts of the unformed paper roads and could provide connectivity to the state highway should that be required.

The broader internal roading network has been developed as a hierarchical system comprising primary access routes supported by secondary and tertiary roads, together with golf cart paths and pedestrian/cycle connections. Based on the concept design, the total length of the internal roading network is approximately 9,950m.

The roading layout has been designed to follow the natural contours of the site, minimising earthworks and integrating with the golf course design and surrounding landscape. This approach provides logical and efficient connections between key activity areas while maintaining the intended low-density, resort-style character of the development.

Opportunities exist to incorporate dedicated walking and cycling pathways throughout the development. These routes could provide connectivity along the SH6 frontage and integrate with the wider active transport network, while also providing direct access to publicly accessible facilities within the site including the clubhouse, driving range, public golf course facilities and visitor amenity areas.

The primary access road will be constructed with a sealed carriageway width of approximately 6.0m, suitable for two-way vehicle movements within a low-speed environment. Further to the above that there is amble space available to increase this formation width should that prove necessary in the future.

The proposed pavement structure is as follows:

- 35mm asphalt surfacing
- 150mm AP40 basecourse
- 150mm AP65 subbase
- Assumed subgrade strength of minimum CBR 7

The road will incorporate flush concrete nib kerbs with adjoining grassed swale water tables to manage stormwater runoff in accordance with Low Impact Design (LID) principles. These swales will provide both conveyance and treatment, allowing runoff to infiltrate into underlying soils and reducing reliance on piped drainage systems.

6.4 Side Roads

A network of secondary and tertiary roads branching from the primary access road will service the various components of the development, including residential lots, operational areas, and resort

facilities. These roads will follow the same design philosophy as the primary access route, with some variation in width to reflect their function within the hierarchy.

Side roads are anticipated to have sealed carriageway widths generally ranging from approximately 3.5m to 6.0m, depending on their level of use and access requirements.

The proposed pavement structure for side roads will be consistent with that of the primary access route and will comprise:

- 35mm asphalt surfacing
- 150mm AP40 basecourse
- 150mm AP65 subbase
- Assumed subgrade strength of minimum CBR 7

As with the primary roads, side roads will incorporate concrete nib kerbs with adjacent grassed swale water tables to convey and treat stormwater runoff. This approach maintains consistency across the network and aligns with the site-wide LID drainage strategy.

Road cross-sections will be adjusted where required to respond to local topography, adjacent land uses, and integration with golf course and landscaping features. This consistent approach to road construction ensures reliable access, effective stormwater management, and integration with the landscape setting of the development.

6.5 Pedestrians and Golf Cart Paths

A network of pedestrian and golf cart paths will be provided throughout the site to facilitate movement between the clubhouse, accommodation areas, and golf course tees. These paths form a key component of the internal transport network and support the operational requirements of the golf resort.

Golf cart paths are anticipated to be approximately 3.0m wide and suitable for use by small vehicles and maintenance equipment where required. The proposed construction typically comprises:

- 100mm AP32 basecourse
- A compacted crusher dust running surface
- Asphalt surface where appropriate

This construction provides a cost-effective and durable solution while maintaining compatibility with the surrounding landscape and minimising visual impact.

Golf cart paths will be provided both independently of, and in some locations integrated with, the internal road network. Together with pedestrian and cycle movements, these paths contribute to a multi-modal, low-speed internal transport environment that reduces reliance on conventional vehicle travel.

6.6 Place and Link Function

The internal roading network is primarily intended to serve a “place” function rather than a strategic transport role. Roads are designed as low-speed environments that provide access to development areas while contributing to the overall amenity and landscape character of the site.

The “link” function of the network is limited, with no requirement to accommodate significant through traffic. This allows for a more context-sensitive design approach, prioritising safety, amenity, and integration with the resort environment. However, the proposed layout maintains opportunities for future walking and cycling connections, including potential links along the SH6 frontage and toward Wānaka Airport should such connections be pursued in the future.

6.7 Connectivity

The proposed roading network provides strong internal connectivity across the site, linking residential areas, visitor accommodation, the clubhouse, driving range, golf course facilities and other visitor amenities. The layout promotes intuitive movement and supports the dispersed, resort-style pattern of development. Integration with the internal road network, golf cart routes and potential walking and cycling pathways provides flexibility for a range of transport modes throughout the site.

6.8 Target Operating Speeds

The internal roading network has been designed to operate as a low-speed environment, consistent with the resort-style character of the development.

Target operating speeds across the site are anticipated to be generally in the order of 20–30 km/h, reflective of the mixed-use nature of the roading environment where vehicles, pedestrians, cyclists, and golf carts coexist.

Road geometry, including carriageway widths, alignment, and intersection layouts, will be designed to reinforce these low speeds through appropriate horizontal and vertical design elements. The absence of long straight sections, together with integration of landscaping and adjacent land uses, will further encourage reduced vehicle speeds. Appropriate signage is expected to be provided to reinforce to road users that speeds are to be low, and that drivers may encounter those that are walking or using a golf cart on the same road surface.

This approach promotes a safe and accessible environment for all users and supports the overall “place” function of the roading network.

6.9 How Cyclists and Pedestrians Will Be Provided For

Cyclist and pedestrian movements within the development will be accommodated through a combination of shared facilities and integration within the low-speed roading environment.

Given the anticipated low traffic volumes and operating speeds, cyclists will be able to safely share the carriageway with vehicles. This approach is appropriate for the private road environment and aligns with the resort-style design of the development.

In addition to on-road provision, cyclists will also be able to utilise shared pedestrian and golf cart paths located throughout the site. These connections provide alternative routes that link key destinations including residential areas, visitor accommodation, golf course facilities, and the clubhouse.

The combination of low-speed roads, shared paths, and integrated movement corridors ensures that cycling is a safe and viable mode of transport within the development, while also supporting recreational use consistent with the overall function of the resort.

6.10 LID Principles for Stormwater Runoff from Roads

Stormwater runoff generated from internal roads will be managed in accordance with Low Impact Design principles. Runoff will be directed into roadside grassed swales, which act as the primary conveyance and treatment system.

These swales will discharge into adjacent open pasture areas or into natural gullies distributed across the site. All stormwater ultimately drains toward a central low-lying area, which functions as the primary receiving environment.

This central depression contains highly permeable outwash gravels, as identified through geotechnical investigation, and is suitable for stormwater infiltration and disposal. Importantly, all stormwater runoff is contained within the site, with no discharge leaving the property boundary.

This internalised approach to stormwater management aligns with the overall infrastructure strategy for the development and minimises potential downstream effects.

6.11 Lighting

Road lighting will be designed to suit the low-speed, rural-resort environment, balancing safety requirements with minimising visual and environmental effects.

6.12 Roading Summary

The proposed roading network has been designed to support a low-speed, resort-style environment, providing safe and efficient access throughout the development.

Access is provided via an upgraded entrance from SH6, incorporating a right-turn bay at the existing priority intersection and allowing for a future roundabout if required, ensuring a safe and appropriate connection to the state highway network and wider unformed road network, if necessary, in the future. The internal roading network comprises a hierarchy of primary and secondary roads, complemented by pedestrian, cycle, and golf cart links throughout the development.

Roads will generally remain private except where public access is to be provided, with carriageway widths generally between 3.5m and 6.0m and operating speeds in the order of 20–30 km/h. Construction will consist of asphalt carriageways, concrete nib kerbs, and grassed swales, integrating stormwater management with the roading network.

Overall, the roading layout is considered appropriate for the scale and nature of the development, providing a functional, safe, and well-integrated transport system.

7. Stormwater

7.1 Stormwater Management Strategy

Stormwater management for the proposed development will be based on Low Impact Design (LID) principles, utilising the natural characteristics of the site to manage runoff in a sustainable and integrated manner.

All buildings, residential lots, roading, and hardstand areas will incorporate LID measures as the primary method of stormwater management. These measures will include:

- Roadside grassed and vegetated swales for conveyance and treatment
- Soakage areas to promote infiltration into underlying soils
- Rain gardens to provide water quality treatment and landscape integration
- Disposal to ground via natural infiltration pathways
- Minimisation of impervious surfaces where practicable

The site exhibits a strongly internalised drainage regime, where all runoff naturally drains toward a central low-lying depression. The proposed development has been designed to maintain this behaviour, such that all stormwater runoff generated will be contained within the site boundary.

Figure 6 – Central depression area

7.2 Existing Catchment and Hydrology

The site is characterised by a central topographic depression that acts as the primary receiving environment for stormwater runoff. Pre-development flows from across the site, and from portions of rural catchments upstream, drain toward this depression where an existing farm pond is located.

This pond functions as both a temporary storage device and a discharge mechanism, with water percolating into underlying outwash gravels.

In addition to on-site catchments, upstream areas to the south contribute flows via roadside drainage along SH6, which are conveyed through culverts into the site and ultimately toward the central depression.

However, much of the upstream contributing catchment is characterised by:

- Very flat terrain
- Numerous natural depressions
- Soils with high infiltration capacity

As a result, these areas generate minimal runoff, with rainfall losses and infiltration often exceeding effective rainfall depth for longer duration storm events.

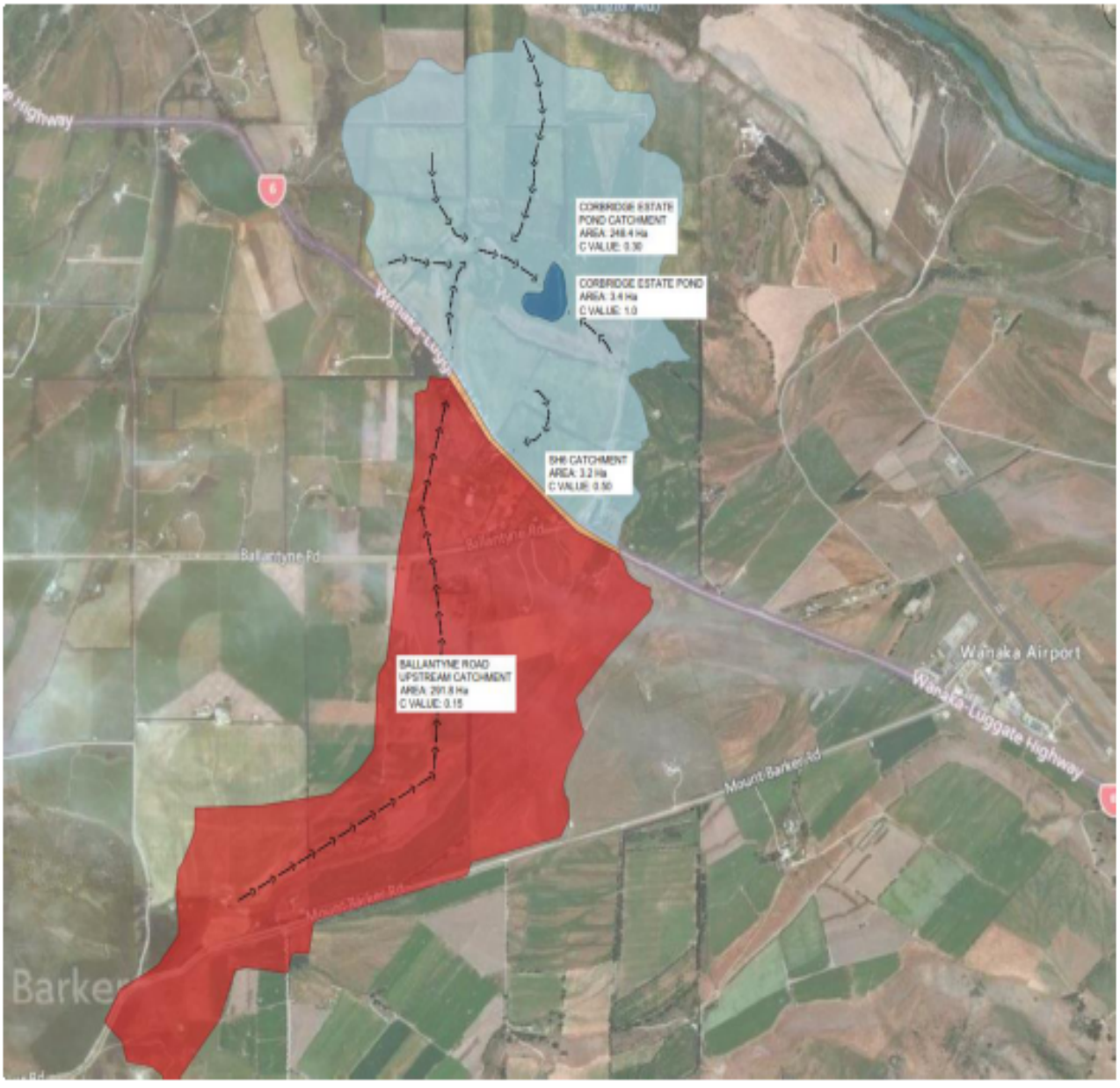

Figure 7 – Existing stormwater catchments (extract from CGW Report dated 21 July 2022)

7.3 Ground Soakage and Infiltration Capacity

Investigations undertaken by GeoSolve have confirmed that outwash gravels are present at shallow depth within the central depression and surrounding low-lying areas. These materials provide highly favourable conditions for stormwater infiltration.

The permeability of the gravels has been estimated to be in the order of:

- $k = 4 \times 10^{-4}$ m/s (~1,400 mm/hr)

This represents a moderate to high infiltration capacity, suitable for soakage-based stormwater disposal systems.

Observed behaviour of the existing farm pond, which drains following cessation of irrigation inflows, further confirms that infiltration to ground is a dominant process.

Further site-specific soakage testing will be undertaken at detailed design stage to confirm:

- Adopted design infiltration rates
- Factor of safety in accordance with QLDC COP
- Final design parameters for soakage infrastructure

7.4 Proposed Stormwater System

The proposed stormwater system will mimic the existing hydrological regime, with runoff conveyed toward the central depression and disposed of via infiltration into underlying soils.

The system adopts a distributed LID approach, incorporating:

- Vegetated swales along roads
- Rain gardens within landscaped areas
- Localised soakage areas
- Piped networks in higher intensity development zones
- Centralised disposal via the lake and underlying gravels

While impervious areas will increase as part of the development, the internalised nature of the site ensures that all additional runoff will be managed within the site, with no effects on downstream environments.

The post-development catchment response is expected to be similar to the pre-development regime, with differences primarily relating to:

- Increased runoff volumes from developed impervious areas.
- Reduced response times for some subcatchments as a result of development
- Controlled discharge via soakage systems

7.5 Central Lake and Stormwater Operation

A key component of the stormwater strategy is the use of the central depression as a managed lake system. This feature will function as:

- A landscape and amenity element
- A primary stormwater storage and recharge system
- A controlled discharge point to ground

Runoff from across the site will be directed toward the lake via a combination of overland flow, vegetated swales, and local piped systems.

The lake will:

- Provide temporary storage of stormwater volumes
- Recharge groundwater via infiltration
- Operate within a controlled level range

Further detailed design modelling will be undertaken to confirm:

- Catchment inflows for design events (Q20, Q50, Q100 volumes)
- Operational water level range (min RL / max RL)
- Required lake storage volume (m^3)

To maintain stable lake levels and prevent excessive ponding, overflow mechanisms will be incorporated. These may include a broad-crested weir or overflow structure discharging to a large open stone filled soakage basin(s).

Soakage systems associated with the lake will be designed to manage stormwater up to at least the 1-in-100-year event, with sufficient freeboard to accommodate extreme rainfall events (e.g. Probable Maximum Precipitation (PMP) conditions).

7.6 Roading Drainage – Vegetated Swales

All internal roads will incorporate vegetated swales as the primary means of stormwater conveyance and treatment.

These swales will:

- Capture runoff from the road carriageway surfaces
- Provide treatment through filtration and sediment capture
- Convey flows to adjacent land or natural drainage paths
- Ultimately discharge toward the central depression

This approach forms a key component of the LID strategy and integrates stormwater management with the landscape.

Figure 8 – Example vegetated swale

7.7 Rain Gardens and Water Quality Treatment

Rain gardens will be used in key locations to provide treatment of runoff from roads, carparking areas, and other hard surfaces.

These systems will:

- Remove sediments and contaminants
- Reduce peak flows
- Promote infiltration

Rain garden sizing and location will be confirmed during detailed design based on contributing catchment areas and contaminant loads.

Figure 9 – Example rain garden

7.8 Piped Stormwater Network

In higher intensity development areas such as Activity Areas VAR 1 – 15 and VA, a piped stormwater network will be provided to collect runoff from roofs and hardstand areas.

These systems will discharge, via treatment systems, toward the central depression and lake system, maintaining the fully internalised drainage approach.
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7.9 Soakage and Disposal Systems

Stormwater disposal will rely on a combination of distributed soakage areas and infiltration into the underlying outwash gravels.

Indicative soakage systems may include:

- Lake overflow soakage areas
- Localised soakage areas for developed precincts
- Distributed infiltration zones across the site

Detailed design will require confirmation of:

- Catchment areas
- Hydrological parameters
- Design runoff volumes
- Required soakage footprint (area/volume)

7.10 Overland Flow Paths

Overland flow paths for events beyond the capacity of primary conveyance systems will follow natural gullies and designed flow routes toward the central depression.

In general, overland flow paths will follow the same route as the primary conveyance system. In many cases (e.g. roadside swales), they will be one and the same. Development areas have been located to avoid these flow paths.

As a result:

- Flooding of buildings is not anticipated
- All flow paths remain internal to the site
- No downstream impacts are expected

7.11 Stormwater Summary

The proposed stormwater management system leverages the natural characteristics of the site to provide a robust, low-impact solution.

Key outcomes include:

- Stormwater fully contained within the site

- No off-site discharge under any event
- Use of natural infiltration via permeable soils
- Central lake acting as a controlled stormwater system
- Post-development response broadly consistent with pre-development behaviour

Overall, the proposed approach is appropriate for the scale and nature of the development and represents best-practice stormwater management for a site of this type. This approach reflects the natural drainage behaviour of the site and avoids reliance on conventional piped discharge systems.

8. Wastewater

8.1 Overview

Wastewater servicing for the proposed Zone has been assessed at a concept level, with two viable servicing options identified:

- Option 1: Connection to QLDC wastewater network
- Option 2: Onsite treatment and disposal to ground

Both options are considered feasible at this stage, with connection to the Council network anticipated to be the preferred long-term solution. The final servicing approach will be confirmed during detailed design in consultation with QLDC.

8.2 Existing Infrastructure

Council's existing wastewater infrastructure in the SH6 corridor provides a logical connection opportunity for the development and forms the basis of the preferred servicing strategy.

A QLDC DN560 PE wastewater rising main runs along the entire southern frontage of the site within the SH6 corridor. This rising main discharges into a DN560 PE gravity pipeline located at the south-eastern corner of the site, which conveys wastewater to the Project Pure wastewater treatment facility approximately 1.5km downstream. While this infrastructure is near the site, any future connection will require:

- Coordination with QLDC
- Confirmation of available network capacity
- Detailed hydraulic assessment
- Connection detailing and design integration

The proximity of this infrastructure provides a logical and potentially efficient connection point for the development.

8.3 Design Basis and Wastewater Demand

Wastewater demand has been estimated based on the proposed land use mix, occupancy assumptions, and accepted design standards.

Phase	Development component	Scale Capacity	Wastewater - Daily (litres)	DWE (750 l/d)	Sub Components	Number	Average Occupancy	Demand l/p/d	Wastewater - Daily (litres)	Wastewater - Peak Instantaneous (l/s)
1	Maintenance facility and worker accommodation		6,300	8.4	Maintenance compound	1	20	40	800	0.05
					Workers accommodation	1	25	220	5,500	0.32
1	Residential Lots	35	26,250	35.0		35	3	250	26,250	1.52
			Subtotal	**43.4**				**Subtotal**	**32,550**	**1.88**
2	Driving range and hospitality precinct		3,000	4.0	Public driving range	1	50	20	1,000	0.06
					Public precinct	1	50	20	1,000	0.06
					Private driving range	1	50	20	1,000	0.06
2	Clubhouse		12,000	16.0		1	400	30	12,000	0.69
2	Visitor Accommodation (Assume 2 Bed)	110	48,400	64.5		110	2	220	48,400	2.80
2	Residential Lots	55	41,250	55.0		55	3	250	41,250	2.39
			Subtotal	**139.5**				**Subtotal**	**104,650**	**6.06**
3	Visitor Accommodation (Assume 2 Bed)	180	79,200	105.6		180	2	220	79,200	4.58
3	Residential Lots	70	52,500	70.0		70	3	250	52,500	3.04
			Subtotal	**175.6**				**Subtotal**	**131,700**	**7.62**
	Total Units	**450**	**Total DWE**	**358.5**				**Total**	**268,900**	**15.56**

Table 1 – Estimated Wastewater Demand

Key assumptions include:

- Average occupancy of 3 persons per residential lot and apartment
- Wastewater generation rate of 250 L/person/day
- Peak instantaneous flow derived using:
  - Dry weather diurnal peaking factor of 2.5
  - Inflow/infiltration factor of 2.0

Preliminary design parameters to be confirmed include:

- Total equivalent loading of approximately 358.5 DWE.
- Average daily wastewater flow of approximately 268.9 m^3/day (268,900 L/day)
- Peak instantaneous wet weather flow of approximately 15.56 L/s.
- Estimated 8-hour pumped dry weather flow of 9.33 L/s.
- Estimated 8-hour pumped wet weather flow of 18.67 L/s

These assumptions are consistent with industry practice and will be refined during detailed design.

Detailed wastewater demand calculations are included in Appendix A.

8.4 Proposed Wastewater Servicing Approach

Given the size of the site, rolling topography, and dispersed nature of development, a low-pressure sewer (LPS) system is considered an appropriate servicing solution.

This system would utilise multiple small pump chambers distributed throughout the site, with wastewater conveyed via a rising main network toward a single discharge location.

Two servicing configurations are considered:

Option 1 - Distributed LPS System

- Pump chambers located throughout the site
- Localised gravity collection
- Conveyance via a rising main network to the connection point

Option 2 - Hybrid Gravity / LPS System (Preferred)

The preferred servicing approach is a hybrid system comprising:

- Gravity drainage from higher areas of the site
- Transfer of flows to a centralised pump station near the natural low point
- Discharge via rising main to the QLDC network at the south-eastern boundary

This approach optimises site topography, reduces the number of pump stations, and provides improved operational efficiency and long-term reliability. This approach also allows flow to be buffered and trickle fed back into the QLDC network at a controlled rate, limiting any possible peak hour capacity constraints within the Council network if required.

The number, size, and location of pump stations will be determined during detailed design.

8.5 Connection to QLDC Network

Connection to the QLDC wastewater network is considered the preferred long-term solution for servicing the development.

A suitable connection point is located at the south-eastern corner of the site within the SH6 road berm, where the existing gravity sewer is accessible.

Previous planning for the site associated with the Silverlight proposal indicated that capacity within the Project Pure treatment facility could be made available. Given that the proposed Zone is expected to generate lower wastewater volumes than earlier large-scale development concepts for the same site, connection remains a potential servicing option. However, QLDC has advised that further information on staging and demand, together with detailed network modelling, will be required to confirm available capacity, identify any infrastructure upgrades, and establish the timing of any upgrade requirements.

Key matters to be resolved during detailed design include:

- confirmation of available capacity within QLDC network
- connection details, levels and hydraulic constraints
- timing and staging of connection

Should capacity constraints be identified, a coordinated off-peak pumping regime may need to be agreed with QLDC with associated buffering storage, and/or upgrades to the public network required as part of the development.

8.6 Onsite Treatment and Disposal (Alternative Option)

Onsite wastewater treatment and disposal to land is considered a viable alternative should connection to the Council network not be available at the time of development.

This option would involve treatment of wastewater via a centralised or distributed treatment system, followed by discharge to ground.

Treated effluent may be disposed of via:

- Subsurface irrigation systems
- Dedicated land application areas

This approach is supported by:

- Large available land area across the site
- Permeable soils suitable for land-based disposal
- Ability to cycle discharge areas to avoid localised loading

Implementation would require resource consent from Otago Regional Council and establishment of an appropriate operational management regime.

8.7 Consultation with Queenstown Lakes District Council

Engagement has been undertaken with QLDC regarding the availability and capacity of Council wastewater infrastructure to service the proposed development. Concept plans, preliminary demand assessments, and proposed servicing options have been provided to Council to support a high-level review of the proposal.

QLDC has advised that the proposal has been reviewed in conjunction with wider infrastructure planning and network servicing considerations. Based on Council's preliminary assessment, no fundamental concerns have been identified regarding the principle of connecting the development to the Council wastewater network, with Council recognising the benefits of connection to the existing reticulated network and Project Pure wastewater treatment facility.

QLDC has advised that further information regarding the timing and staging of development demand is required to understand potential effects on the wider wastewater network. Council has also identified that network modelling will be required to determine available capacity, identify any required upgrades, and establish when those upgrades may be required to support the development.

Key matters to be resolved through ongoing engagement include:

- Confirmation of available network capacity
- Requirements for any network upgrades or developer-funded works
- Preferred connection arrangements
- Timing and staging of network integration

While further assessment is required, the proximity of existing wastewater infrastructure provides a logical connection opportunity and no physical servicing constraints have been identified that would prevent future integration with the QLDC network.

8.8 Servicing Strategy and Staging

Both servicing options remain viable at this stage and have been retained to maintain flexibility through the plan change process.

A staged servicing approach may be adopted, which could include:

- Initial provision of onsite treatment and disposal systems
- Subsequent connection to the QLDC network as capacity becomes available

The final servicing strategy will be determined based on:

- Detailed engineering design
- Engagement with QLDC
- Infrastructure availability and capacity
- Development staging and timing

8.9 Vesting of Assets

The proposed wastewater infrastructure associated with the future development may be delivered under a range of ownership and operational models, depending on the final servicing approach and outcomes of engagement with QLDC.

At this stage, the following potential arrangements are envisaged:

- **Private Ownership:**
  All wastewater infrastructure, including reticulation, pump stations, and treatment systems (if applicable), remains in private ownership and is operated and maintained by a site management entity or body corporate. This approach aligns with the predominantly private road network and overall resort-style nature of the development.

- **Vesting in Council:**
  Where connection to the QLDC wastewater network is confirmed and infrastructure is constructed in accordance with Council standards, portions of the reticulated network may be vested in Council ownership. Any such vesting would be subject to QLDC approval, compliance with the QLDC Land Development and Subdivision Code of Practice, and satisfaction of Council asset acceptance criteria.

- **Hybrid Approach (Likely Scenario):**
  A hybrid arrangement is considered the most likely outcome, whereby:

    - Internal reticulation networks and private pump stations remain privately owned and maintained; and
    - Strategic infrastructure, such as the final connection point and any assets required to integrate with the QLDC network, are vested in Council following completion and approval.

The final ownership and vesting arrangements will be confirmed during detailed design and subdivision consenting, in consultation with QLDC. Consideration will be given to long-term operational responsibility, maintenance requirements, and alignment with Council infrastructure strategies.

8.10 Wastewater Summary

Wastewater servicing for the Zone and future development can be effectively achieved through either connection to the QLDC wastewater network or onsite treatment and disposal to ground.

Connection to the Council network is the preferred long-term solution, supported by the proximity of existing infrastructure and anticipated capacity availability. A hybrid gravity and low-pressure sewer system is considered the most efficient approach for wastewater conveyance across the site.

An onsite disposal solution remains a viable alternative and provides flexibility should Council connection not be immediately available.

Preliminary engagement with QLDC has not identified any fundamental impediment to wastewater servicing of the development. The primary matters identified relate to confirmation of staging, cumulative network loading, and any infrastructure upgrades that may be required as development proceeds. These matters are capable of being addressed through detailed design, hydraulic modelling, staging conditions, and where necessary developer-funded upgrade works.

9. Water Supply

9.1 Overview

Water supply for the proposed Zone has been assessed at a concept level, with two primary servicing options identified:

- Option 1: Connection to the QLDC potable water network
- Option 2: Private water supply sourced from onsite groundwater

A hybrid approach is considered the most likely servicing solution, whereby potable water is sourced from the QLDC network and non-potable demands, including irrigation, are met from onsite groundwater resources.

Both options are considered feasible at this stage, with the preferred servicing solution to be confirmed during detailed design in consultation with QLDC.

9.2 Existing Water Infrastructure

There are three groundwater bores located within the site, supported by existing Otago Regional Council water permits. Two bores are currently operational and provide water for domestic and irrigation purposes, while a third bore has been installed and remains available for future use.

- **Bore 1**: Supplies potable water to the existing farmhouse, sheds, and woolshed event centre.
- **Bore 2**: Used for irrigation across the wider farm paddocks.
- **Bore 3**: Installed and cased but not currently in use.

Copies of the existing groundwater take permits are included in Appendix D.

The site benefits from a substantial existing groundwater resource, with three groundwater abstraction consents authorising irrigation takes from the underlying aquifer systems. Consent No. 2003.271 authorises a groundwater take of up to 16 litres per second, 1,267 m^3/day and 304,080 m^3/year, while Consent No. 2003.273 authorises a groundwater take of up to 17 litres per second, 1,346 m^3/day and 324,120 m^3/year. Both consents expire in May 2028 and also allow water to be taken for domestic and stock water purposes.

In addition, Consent No. RM10.388.01.V2 authorises the abstraction of groundwater from the Wānaka-Cardrona Aquifer at rates of up to 50 litres per second, 4,320 m^3/day and 652,320 m^3 per annum, with a consent expiry of 1 December 2035. This consent relates to land within and adjoining the wider Corbridge property and represents a significant groundwater allocation resource available to the site.

Collectively, the existing groundwater consents provide abstraction rights of up to approximately 83 litres per second and more than 1.28 million cubic metres per annum. These consented takes demonstrate the established availability and historic utilisation of groundwater resources across the property and provide a strong foundation for meeting future non-potable water demands associated with golf course irrigation, landscape irrigation, lake management and wider amenity requirements.

These bores therefore represent a valuable resource for future development, providing flexibility for both potable and non-potable supply, subject to confirmation of bore yields, water quality, hydrogeological investigations and any future consent requirements.

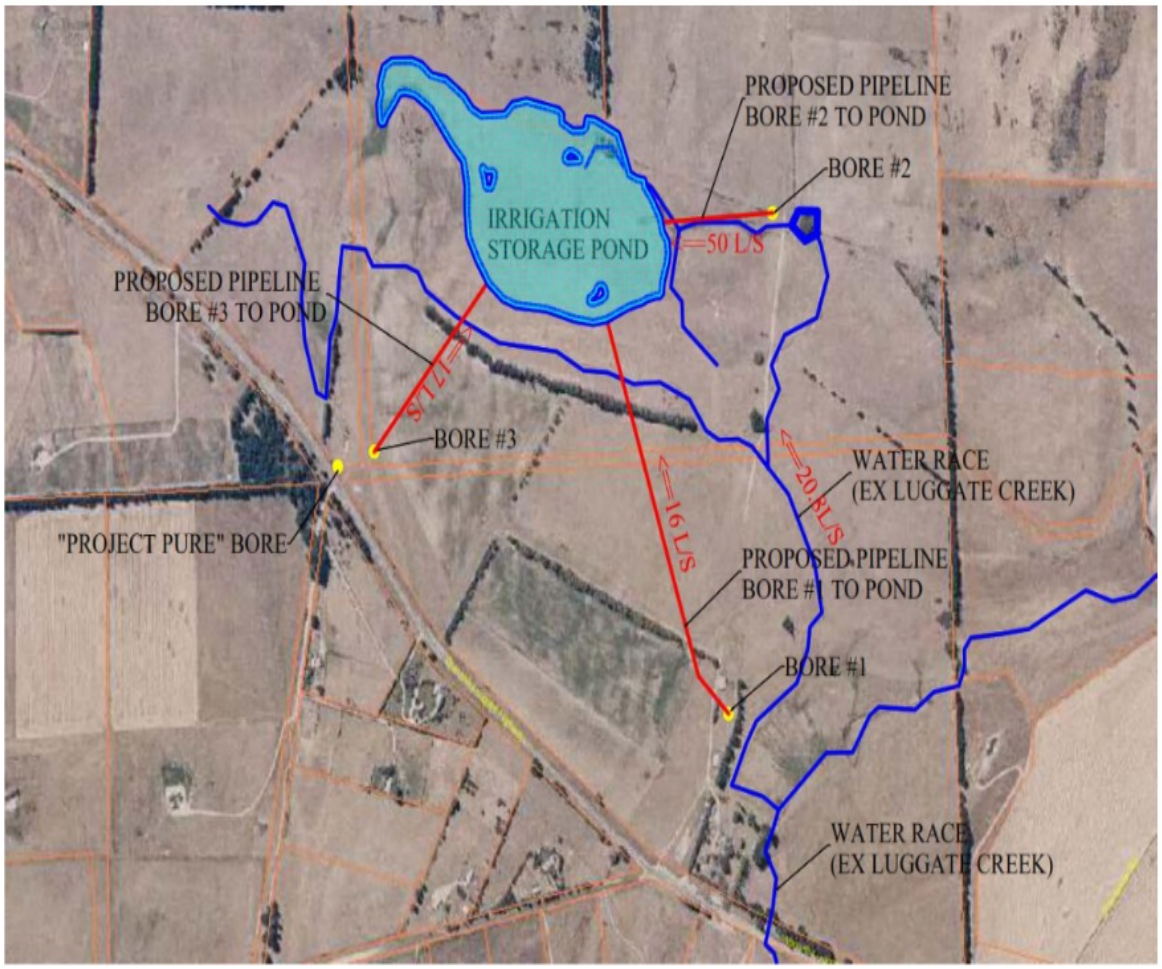

Figure 10 – Existing water and irrigation supplies (extract from Ken Higgie Ltd Report, 2010)

In addition, a Council-owned water bore is located near SH6 within a legal road corridor traversing the site. This bore currently supplies water to the Project Pure wastewater treatment facility and properties to the east and represents existing Council infrastructure within the wider area. It is our understanding that Council intends to decommission this bore which provides a potential option to take over this infrastructure from Council for the supply of water to Corbridge.

The nearest Council-owned water supply network is located approximately 1.5km east of the site in the vicinity of Wānaka Airport. Connection opportunities may exist in association with this infrastructure, however confirmation of servicing arrangements, capacity and upgrade requirements will require further assessment in consultation with QLDC.

Council has recently undertaken upgrades to the wider Luggate water supply scheme and is progressing further improvements to source, treatment, and pumping infrastructure. These upgrades provide an improved basis for future servicing of growth within the area.

9.3 Water Demand

The development will include a mix of residential, visitor accommodation, hospitality, and recreational uses, resulting in demand for both potable and non-potable water.

Water demand has been estimated based on recognised industry guidelines and QLDC Code of Practice values. Detailed water demand calculations are included in Appendix B.

Phase	Development component	Scale Capacity	Water Use - Daily (litres)	DWE (2100 l/d)	Sub Components	Number	Average Occupancy	Demand l/p/d	Water Use - Daily (litres)	Water Use - Peak Instantaneous
1	Maintenance facility and worker accommodation		6,300	3.0	Maintenance compound	1	20	40	800	0.06
					Workers accommodation	1	25	220	5,500	0.42
1	Residential Lots	35	73,500	35.0		35	3	700	73,500	5.61
			Subtotal	**38.0**				**Subtotal**	**79800.0**	**6.10**
2	Driving range and hospitality precinct		3,000	1.4	Public driving range	1	50	20	1000.0	0.08
					Public precinct	1	50	20	1000.0	0.08
					Private driving range	1	50	20	1000.0	0.08
2	Clubhouse		12,000	5.7		1	400	30	12000.0	0.92
2	Visitor Accommodation (Assume 2 Bed)	110	48,400	23.0		110	2	220	48400.0	3.70
2	Residential Lots	55	115,500	55.0		55	3	700	115500.0	8.82
			Subtotal	**85.2**				**Subtotal**	**178900.0**	**13.67**
3	Visitor Accommodation (Assume 2 Bed)	180	79,200	37.7		180	2	220	79200.0	6.05
3	Residential Lots	70	147,000	70.0		70	3	700	147000.0	11.23
			Subtotal	**107.7**				**Subtotal**	**226200.0**	**17.28**
	Total Units	**450**	**Total DWE**	**230.9**				**Total**	**484900.0**	**37.04**

Table 2 – Water Supply Demand

Key assumptions include:

- Residential demand of approximately 700 L/person/day, accounting for internal and external use
- Apartment and visitor accommodation demand of approximately 250 L/person/day
- Commercial and public facilities based on standard per capita rates (e.g. TP58 and QLDC guidelines)
- Peaking factor of 6.6 applied in accordance with QLDC Land Development and Subdivision Code of Practice

Preliminary design parameters to be confirmed include:

- Total equivalent loading of approximately 230.9 DWE.
- Average daily potable water demand of approximately 484.9 m^3/day (484,900 L/day).
- Peak instantaneous domestic demand of approximately 37.04 L/s.
- Peak firefighting demand of approximately 50 L/s.
- Combined peak water supply requirement of approximately 72.22 L/s, including firefighting demand in accordance with SNZ PAS 4509.

The difference between potable water demand and wastewater generation reflects the inclusion of external water use allowances and irrigation-related demands that do not enter the wastewater network.

Golf course Irrigation demand, which represents a significant component of total water usage, will be met through non-potable water sources, including onsite bores and potential use of the central lake.

9.4 Proposed Water Supply Options

9.4.1 Option 1 – Private Groundwater Supply

One option for servicing the development is to utilise the existing onsite bores to supply water demands. The site benefits from three existing groundwater bores supported by substantial Otago Regional Council water permits. Collectively, the existing consents provide for groundwater abstraction of up to approximately 6,933 m^3/day and 83 litres per second.

This available allocation significantly exceeds the estimated potable water demand of approximately 484.9 m^3/day for the proposed development. As such, the existing groundwater resource has the potential to provide a reliable and resilient supply for both potable and non-potable water requirements, subject to confirmation of bore yields, water quality, treatment requirements, hydrogeological assessment and future consent considerations.

While significant groundwater allocation exists, further assessment will be required to confirm bore capacity, treatment requirements, storage requirements, and any upgrades necessary to the existing private reticulation network to service the proposed development.

During detailed design, additional investigations and water quality testing will be undertaken to confirm suitability for potable use in accordance with the Water Service Act and Drinking Water Standards for New Zealand. Where required, treatment systems such as filtration, ultraviolet disinfection and chlorination can be incorporated in conjunction with centralised storage reservoirs and booster pumping infrastructure.

The substantial groundwater allocation available on the property provides a viable alternative servicing solution should a connection to the QLDC potable water network not be available or desirable, while also offering opportunities for a hybrid servicing approach combining private groundwater resources with public reticulated supply.

9.4.2 Option 2 – Connection to QLDC Network

The second option is to connect to the QLDC potable water supply, subject to confirmation of network capacity and performance.

This will likely rely on the upgraded Luggate water scheme, which is scheduled for upgrading in the immediate term. The proposed connection point is located at or near the site entrance.

Two supply configurations are considered:

Direct Supply with Booster Pumps

- Supply to meet peak instantaneous demand
- Onsite booster pumping to achieve required pressures
- Storage tanks providing firefighting capacity

Trickle Feed with Onsite Storage (Preferred)

- Continuous supply at average demand rate
- Operational storage in centralised tanks or reservoirs
- Additional firefighting storage
- Reticulation via private network with booster pumps

The trickle feed approach reduces peak demand on Council infrastructure.

9.4.3 Option 3 – Hybrid Supply Approach

A hybrid approach is considered the most appropriate servicing strategy, comprising:

- Potable supply sourced from the QLDC network
- Non-potable supply (primarily irrigation) sourced from onsite groundwater and potentially the central lake

This approach:

- Reduces demand on Council infrastructure
- Provides system resilience and redundancy
- Aligns with the high irrigation demands of a golf course development

9.5 Firefighting Water Supply

Firefighting demand will be provided in accordance with SNZ PAS 4509:2008.

Fire Fighting	Fire Water Classification (FHC)		Sprinklered YES/NO	Peak Sprinkler Demand L/min (l/s)	Hydrant Demand L/min (l/s)	Fire Water Use (combined) l/min (l/s)	Storage Required in Reservoir m3
Lots	FW2		N	0	1,500 (25)	1,500 (25)	45
Maintenance compound	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Workers accommodation	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Public precinct	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Public driving range	FW2		N	0	1,500 (25)	1,500 (25)	45
Golf driving range	FW2		N	0	1,500 (25)	1,500 (25)	45
Clubhouse precinct	FW3		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Free hold apartments (Lake house)	FW2		Y	1,500 (25)	1,500 (25)	1,500 (25)	45*
Hotel precinct	FW3		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Private restaurant	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Peak Demand						**50**	
Peak Fire including 60% Domestic Demand						**72.22**	

Table 3 – Firefighting Demand

Water supply infrastructure will be designed to meet required fire flows and storage requirements. Where sufficient supply can be provided directly from the Council network, dedicated storage tanks may not be required.

Where storage is required, tanks may be shared between nearby facilities (e.g. worker accommodation and maintenance areas) to optimise infrastructure provision and reduce duplication.

9.6 Onsite Storage and Reticulation

The development will include an internal water supply network supported by onsite storage and pumping infrastructure, comprising:

- Storage tanks or reservoirs
- Booster pump systems
- Reticulation network servicing all buildings and uses

The system will be designed to:

- Maintain adequate pressures throughout the site
- Provide resilience during peak demand and fire events
- Accommodate staged development

9.7 Consultation with Queenstown Lakes District Council

Engagement has been undertaken with QLDC regarding the availability of potable water supply from the Council network and the capacity of existing infrastructure to service the proposed development. Concept plans, servicing options, and preliminary demand assessments have been provided to Council to support a high-level review of the proposal.

QLDC has advised that, based on an initial review of the proposed development demand and current long-term network projections, additional infrastructure upgrades may be required to support a network connection. Council has identified potential constraints associated with existing bore supply capacity and consented abstraction limits within the wider water supply scheme.

QLDC has indicated that a servicing strategy involving a continuous trickle-feed supply to private on-site storage reservoirs, combined with booster pumping, appears more likely to be appropriate than direct supply of peak instantaneous demand from the Council network. This approach aligns with the preliminary servicing strategy identified within this report and is considered a practical means of reducing demand on Council infrastructure while maintaining supply resilience.

QLDC has confirmed a willingness to continue assessing the proposal and has advised that further network modelling is required to:

- Confirm available network capacity
- Assess the feasibility of connection options
- Determine any required network upgrades
- Consider integration with wider infrastructure planning initiatives
- Confirm staging and implementation requirements

Detailed modelling is proposed to be undertaken through Council's Property and Infrastructure Department utilising Council's existing network models, providing an agreed technical basis for future servicing decisions.

While further technical assessment is required, Council has not ruled out connection to the public water supply network, and discussions remain ongoing regarding the preferred servicing approach.

9.8 Servicing Strategy and Staging

The water supply system will be implemented in stages aligned with the development.

A staged approach may include:

- Initial use of onsite groundwater for irrigation demand
- Progressive connection to QLDC network for potable supply
- Expansion of storage and distribution systems over time

The final strategy will be confirmed during detailed design.

9.9 Vesting of Assets

Water supply infrastructure may be delivered under a range of ownership models:

- **Private Ownership:**
  Internal reticulation, storage tanks, and booster systems remain privately owned and maintained

- **Vesting in Council:**
  Supply mains and infrastructure connected to the QLDC network may be vested where constructed to Council standards

- **Hybrid Approach (Likely):**
  Council-owned trunk supply combined with private on-site infrastructure

Final arrangements will be confirmed in consultation with QLDC.

9.10 Water Supply Summary

Water supply for the proposed development can be effectively provided through a combination of QLDC network supply and onsite groundwater resources.

A hybrid approach is considered the most appropriate, with potable demand supplied from the Council network and non-potable demand met through private supply.

Preliminary engagement with QLDC has identified the need for further assessment of network capacity and servicing arrangements. The proposed staged development programme, combined with a trickle-feed supply arrangement to onsite storage and the availability of substantial private groundwater resources for irrigation demands, provides flexibility in developing a long-term servicing solution.

10. Infrastructure Staging

10.1 Development Staging

The staged demand assessment has been prepared to assist ongoing discussions with QLDC regarding infrastructure capacity, anticipated development timing and potential upgrade requirements.

The proposed development is intended to be delivered in three stages extending over an anticipated period between approximately 2028 and 2033. Infrastructure demand will therefore be introduced incrementally rather than as a single development event.

Residential occupancy and visitor accommodation demand are expected to lag behind subdivision completion and building construction, meaning actual loading on public infrastructure networks will occur progressively over time.

This staged approach provides opportunities for infrastructure providers to monitor network performance, undertake detailed modelling, and implement upgrades where required as development proceeds.

Table 4 - Wastewater Phased Demand Table

Stage	Wastewater DWE	Wastewater Flow	Infrastructure Impact Period
Phase 1	43.4 DWE	32.55 m^3/day	Jan 2029-Jul 2030
Phase 2	139.5 DWE	104.65 m^3/day	Jul 2029-Jul 2031
Phase 3	175.6 DWE	131.7 m^3/day	Nov 2031-Sep 2033
Total	358.5 DWE	268.9 m^3/day	

Table 5 - Water Phased Demand Table

Stage	Water DWE	Water Demand	Infrastructure Impact Period
Phase 1	38.0 DWE	79.8 m^3/day	Jan 2029-Jul 2030
Phase 2	85.2 DWE	178.9 m^3/day	Jul 2029-Jul 2031
Phase 3	107.7 DWE	226.2 m^3/day	Nov 2031-Sep 2033
Total	230.9 DWE	484.9 m^3/day	

10.2 Developer Agreement

Should future network modelling identify infrastructure upgrade requirements, these may be addressed through detailed design, development agreements, infrastructure growth contributions, staging conditions, or developer-funded upgrade works as agreed with QLDC.

11. Network Utility Services

11.1 Overview

The provision of network utility services for the proposed Zone has been assessed at a concept level, including electricity and telecommunications infrastructure.

Both utility services are available within the vicinity of the site, and confirmation has been received that connections to existing networks can be provided to service the proposed development.

Utility provider correspondence and servicing confirmations are included in Appendix C.

11.2 Electricity Supply

Electricity supply to the site will be provided through connection to the existing electricity distribution network in the area.

Preliminary engagement with the network utility provider has confirmed that sufficient capacity is available within the existing network to service the proposed development, subject to detailed design and network augmentation where required.

The internal electricity network will be designed to service all development components, including residential lots, visitor accommodation, clubhouse facilities, and operational areas. This is expected to comprise a combination of:

- Primary distribution infrastructure (including transformers where required)
- Reticulated distribution network across the site
- Connections to individual lots and buildings

The final configuration, including any required upgrades to the external network, will be confirmed during detailed design in consultation with the network provider.

11.3 Telecommunications

Telecommunications services, including broadband and data connectivity, will be provided via connection to existing telecommunications infrastructure in the vicinity of the site.

Confirmation has been received that telecommunications services can be extended to the site, enabling provision of modern communication infrastructure to support residential, commercial, and resort operations.

Internal reticulation will be installed throughout the development to service all buildings and facilities, providing connectivity consistent with current service expectations.

The detailed design of telecommunications infrastructure will be undertaken in coordination with the relevant service providers.

11.4 Servicing Strategy and Integration

Electricity and telecommunications networks will be developed alongside the staged construction of the site.

Infrastructure will be extended progressively to service development areas as required, ensuring efficient delivery and integration with other services, including roading and water infrastructure.

The design will consider:

- Coordination with other underground services
- Minimisation of visual and environmental effects
- Integration with landscape design and site layout

11.5 Asset Ownership

Utility infrastructure may be delivered under a range of ownership arrangements, depending on provider requirements.

Typically:

- Trunk and distribution infrastructure will be owned and operated by the relevant utility providers (e.g. electricity distribution company, telecommunications provider)
- Internal private reticulation may remain in private ownership where appropriate

Final arrangements will be confirmed during detailed design in consultation with the relevant utility providers.

11.6 Network Utilities Summary

Electricity and telecommunications services can be readily provided to the site through connection to existing networks.

No constraints have been identified that would prevent the provision of these services, and infrastructure can be delivered in a staged manner to support the proposed development.

12. Infrastructure Summary and Conclusions

This Infrastructure Assessment Report has evaluated the feasibility of servicing the proposed Zone across key disciplines, including earthworks, roading, stormwater, wastewater, water supply, and network utilities.

The assessment confirms that the site can be effectively serviced and developed for the proposed use, with no fundamental infrastructure constraints identified.

The site benefits from a number of favourable characteristics, including:

- Rolling topography that supports gravity-led infrastructure design
- A central depression suitable for integrated stormwater management
- Permeable soils that enable infiltration-based drainage solutions
- Proximity to existing Council infrastructure, including water and wastewater networks
- Availability of onsite resources, including groundwater supply

The proposed roading network provides a safe and efficient access system consistent with a low-speed, resort-style environment, with infrastructure remaining predominantly private and integrated with the overall landscape design.

Stormwater management represents a key strength of the site, with an internalised system based on Low Impact Design principles, and all stormwater runoff contained within the site and managed through infiltration utilising the natural topography and underlying soils.

Wastewater servicing can be achieved through either connection to the QLDC network or private onsite treatment and disposal. A hybrid gravity and low-pressure system is considered the currently preferred conveyance approach, with connection to the Council network anticipated as the long-term solution, subject to confirmation of capacity.

Water supply can be provided through a combination of Council network supply, potentially via a trickle-feed arrangement to on-site storage, and onsite groundwater resources for non-potable demands. Ongoing engagement with QLDC will confirm the preferred long-term servicing configuration.

Electricity and telecommunications services are available within the vicinity of the site and can be readily extended to service the development.

Across all infrastructure disciplines, a key principle of the proposed development is flexibility. Servicing solutions have been developed to allow for staged implementation, enabling the development to proceed while maintaining alignment with Council infrastructure planning and capacity.

Based on the assessments undertaken, it is concluded that:

- The proposed development can be adequately serviced by all required infrastructure

- No significant engineering or servicing constraints have been identified
- The site is well suited to development of the scale and nature proposed
- Infrastructure can be delivered in a staged and coordinated manner

A key outcome of the assessment is that infrastructure demand will occur progressively over an extended development period. Based on the current development programme, infrastructure loading will be staged between approximately 2029 and 2033, allowing Council and service providers to assess network performance and implement any required upgrades in a coordinated manner. This staged delivery significantly reduces the risk of sudden demand increases on public infrastructure networks.

Detailed water supply and wastewater network modelling is currently proposed to be undertaken through Queenstown Lakes District Council's Property and Infrastructure Department. This work will provide a robust technical basis for confirming network capacity, identifying any upgrade requirements, and informing future developer agreements, staging provisions and servicing arrangements. The existence of established connection opportunities, combined with ongoing technical assessment, supports the conclusion that infrastructure servicing matters can be appropriately resolved through subsequent design and consenting processes.

Overall, the Corbridge Golf Resort development is considered to be technically feasible from an infrastructure perspective and capable of being serviced in a manner that is sustainable, efficient, and consistent with best practice engineering principles.

Appendix A – Wastewater Demand Calculations

Wastewater Production

Phase	Development component	Scale Capacity	Wastewater - Daily (litres)	DWE (750 l/d)	Sub Components	Number	Average Occupancy	Demand l/p/d	Wastewater - Daily (litres)	Wastewater - Peak Instantaneous (l/s)
1	Maintenance facility and worker accommodation		6,300	8.4	Maintenance compound	1	20	40	800	0.05
					Workers accommodation	1	25	220	5,500	0.32
1	Residential Lots	35	26,250	35.0		35	3	250	26,250	1.52
			Subtotal	**43.4**				**Subtotal**	**32,550**	**1.88**
2	Driving range and hospitality precinct		3,000	4.0	Public driving range	1	50	20	1,000	0.06
					Public precinct	1	50	20	1,000	0.06
					Private driving range	1	50	20	1,000	0.06
2	Clubhouse		12,000	16.0		1	400	30	12,000	0.69
2	Visitor Accommodation (Assume 2 Bed)	110	48,400	64.5		110	2	220	48,400	2.80
2	Residential Lots	55	41,250	55.0		55	3	250	41,250	2.39
			Subtotal	**139.5**				**Subtotal**	**104,650**	**6.06**
3	Visitor Accommodation (Assume 2 Bed)	180	79,200	105.6		180	2	220	79,200	4.58
3	Residential Lots	70	52,500	70.0		70	3	250	52,500	3.04
			Subtotal	**175.6**				**Subtotal**	**131,700**	**7.62**
	Total Units	**450**	**Total DWE**	**358.5**				**Total**	**268,900**	**15.56**

Following wastewater demands taken from the QLDC
Wastewater production for lots and apartments based on 250 l/person/day (QLDC COP 5.3.5.1 a(i).
Peak instantaneous production taken as average daily demand per second, with 2.5x dry weather diurnal peaking factor and 2x dilution/infiltration factor.
Following wastewater demands taken from TP No. 58
Maintenance compound taken from Day Staff of 60 l/p/d
Workers accommodation taken from Motels guests resident stuff of 220 l/p/d
Public precinct taken from Public toilet of 20 l/p/d
Public driving range taken from Public toilet of 20 l/p/d
Golf driving range taken from Public toilet of 20 l/p/d
Clubhouse precinct taken from Restaurant /bar/cafe of 30 l/p/d
Hotel precinct taken from Motels/Hotels of 220 l/p/d
Private restaurant taken from Restaurant/bar/cafe of 30 l/p/d

Appendix B – Water Supply Demand Calculations

Water Demand Staged Summary

Phase	Development component	Scale Capacity	Water Use - Daily (litres)	DWE (2100 l/d)	Sub Components	Number	Average Occupancy	Demand l/p/d	Water Use - Daily (litres)	Water Use - Peak Instantaneous (6.6) (l/s)
1	Maintenance facility and worker accommodation		6,300	3.0	Maintenance compound	1	20	40	800	0.06
					Workers accommodation	1	25	220	5,500	0.42
1	Residential Lots	35	73,500	35.0		35	3	700	73,500	5.61
			Subtotal	**38.0**				**Subtotal**	**79800.0**	**6.10**
2	Driving range and hospitality precinct		3,000	1.4	Public driving range	1	50	20	1000.0	0.08
					Public precinct	1	50	20	1000.0	0.08
					Private driving range	1	50	20	1000.0	0.08
2	Clubhouse		12,000	5.7		1	400	30	12000.0	0.92
2	Visitor Accommodation (Assume 2 Bed)	110	48,400	23.0		110	2	220	48400.0	3.70
2	Residential Lots	55	115,500	55.0		55	3	700	115500.0	8.82
			Subtotal	**85.2**				**Subtotal**	**178900.0**	**13.67**
3	Visitor Accommodation (Assume 2 Bed)	180	79,200	37.7		180	2	220	79200.0	6.05
3	Residential Lots	70	147,000	70.0		70	3	700	147000.0	11.23
			Subtotal	**107.7**				**Subtotal**	**226200.0**	**17.28**
	Total Units	**450**	**Total DWE**	**230.9**				**Total**	**484900.0**	**37.04**

Fire Fighting	Fire Water Classification (FHC)		Sprinklered YES/NO	Peak Sprinkler Demand L/min (l/s)	Hydrant Demand L/min (l/s)	Fire Water Use (combined) l/min (l/s)	Storage Required in Reservoir m3
Lots	FW2		N	0	1,500 (25)	1,500 (25)	45
Maintenance compound	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Workers accommodation	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Public precinct	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Public driving range	FW2		N	0	1,500 (25)	1,500 (25)	45
Golf driving range	FW2		N	0	1,500 (25)	1,500 (25)	45
Clubhouse precinct	FW3		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Free hold apartments (Lake house)	FW2		Y	1,500 (25)	1,500 (25)	1,500 (25)	45*
Hotel precinct	FW3		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Private restaurant	FW2		Y	1,500 (25)	1,500 (25)	3,000 (50)	45*
Peak Demand						**50**	
Peak Fire including 60% Domestic Demand						**72.22**	

sprinkler demand - Likely 45-90m3

Conclusion: Domestic demand peak estimated at 34.7 **l/s**.Key supply demand will be fire fighting with 60% peak domestic demand as

required by PAS SNZ4509, which equates to 71 l/s.

Following water demand taken from the QLDC (l/p/d = Litres/person/day)

Lots is based on 700 l/p/d

Free hold apartments (Lake house) based on 250 l/p/d, irrigation via another separate source (private bore etc)

Following water demand taken from TP No. 58

Maintenance compound taken from Day Staff of 40 l/p/d

Workers accommodation taken from Motels guests resident stuff of 220 l/p/d Assume 50% occupancy to account for seasonal work

Public precinct taken from Public toilet of 20 l/p/d

Public driving range taken from Public toilet of 20 l/p/d Assume 100 guests using clubhouse, and 300 golfers (average demand) using both courses

Golf driving range taken from Public toilet of 20 l/p/d

Clubhouse precinct taken from Restaurant /bar/cafe of 30 l/p/d

Hotel precinct taken from Motels/Hotels of 220 l/p/d

Hotel precinct, staff & visitors taken from Motels/Hotels of 30 l/p/d

Private restaurant taken from Restaurant/bar/cafe of 30 l/p/d

Fire fighting assumes care/clubhouse will include sprinkler based on ordinary hazard (OH) 20-25 l/s

Appendix C – Utility Supply Confirmations

Chorus NZ Ltd
4 Graham Street
Auckland CBD

Aaron Cook
Senior Civil Designer
Patersons
Christchurch

14th April 2026

Hi Aaron,

Thank you for providing an indication of your development plans in this area.

I can confirm that we have UFB fibre infrastructure in the area that you are proposing to develop. Chorus will be able to extend our network to provide connection availability to **"Corbridge Golf Resort - 707 Wanaka-Luggate Highway, Wanaka".**

However, please note that this undertaking would of course be subject to Chorus understanding the final total property connections that we would be providing, roll-out of future property releases/dates and what investment may or may not be required from yourselves and Chorus to deliver any further infrastructure to and throughout the site in as seamless and practical way as possible.

The costs for any future works involved can only be finalised at the time that you are ready to proceed.

Chorus is happy to work with you on this project as the network infrastructure provider of choice. What this ultimately means is that the end customers (business and home owners) will have their choice of any retail service providers to take their end use services from once we work with you to provide the physical infrastructure.

Please reapply with a detailed site plan when you are ready to proceed.

Thanks

Kind Regards,

Danny Masterson
Business Development Manager
021849233
Chorus NZ Ltd

AURORA ENERGY LIMITED
PO Box 5140, Dunedin 9058
PH 0800 22 00 05
WEB www.auroraenergy.co.nz

09/04/2026 REF: 131447

Aaron cook
Patersons Land professionals
aaron.cook@patersons.co.nz

Dear Aaron,

ELECTRICITY SUPPLY AVAILABILITY FOR A PROPOSED NEW DEVELOPMENT - NEW LARGE COMPLEX
707 WANAKA-LUGGATE HIGHWAY, WĀNAKA .

Thank you for your inquiry outlining the above proposed development.
Subject to technical, legal and commercial requirements, Aurora Energy can make a Point of Supply[1] (PoS) available for this development.

Disclaimer

This letter confirms that a PoS **can** be made available. This letter **does not** imply that a PoS is available now, or that Aurora Energy will make a PoS available at its cost.

Next Steps

To arrange an electricity connection to the Aurora Energy network, a connection application will be required. General and technical requirements for electricity connections are contained in Aurora Energy's Network Connection Standard. Connection application forms and the Network Connection Standard are available from www.auroraenergy.co.nz.

Yours sincerely

Niel Frear
CUSTOMER INITIATED WORKS MANAGER

[1] Point of Supply is defined in section 2(3) of the Electricity Act 1993.

Appendix D – Groundwater Take Permits

Otago Regional Council

Consent No: 2003.271

WATER PERMIT

Pursuant to Section 105 of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: [~~Brian Lewis Hore~~] transferred 26 November 2009

Address: [~~Corbridge Downs, State Highway 6, R D 2, Wanaka~~]

Name: [~~Corbridge Estates Limited~~] *transferred 29 June 2010*

Address: [~~99 Ardmore Street, Wanaka~~]

Name: Corbridge Park Limited as partner of Corbridge Estates Limited Partnership

Address: 99 Ardmore Street, Wanaka

To take and use groundwater

for the purpose of irrigation

for a term to expire on 14 May 2028

Location: Approximately 280 metres north east of the intersection of Wanaka-Luggate Highway (State Highway 6) and Ballantyne Road, Wanaka.

Legal description of consent location: Sec 1 Blk II Lower Wanaka SD

Approximate map reference: NZMS 260 G40:104-035

Conditions:

1. This permit shall only be exercised for irrigation during the period of 1 September to 30 April. The rate of abstraction shall not exceed
   (a) 16 litres per second;
   (b) 1,267 cubic metres per day;
   (c) 8,869 cubic metres per week;
   (d) 38,010 cubic metres per month;
   (e) 304,080 cubic metres per year

Note: water may be taken at any time for domestic or stock water purposes.

2. The consent holder shall take all practicable steps to ensure that:
   (a) the volume of water used for irrigation does not exceed soil field capacity of the irrigated areas;
   (b) the irrigation does not cause surface runoff;
   (c) leakage from pipes and structures is avoided;
   (d) the use of water onto non-targeted areas is avoided;
   (e) irrigation induced soil erosion and soil pugging does not occur;
   (f) soil quality is not degraded as a consequence of irrigation; and
   (g) loss of water, nutrients, and agrichemicals by percolation to groundwater is minimised.

3. The consent holder shall install a water meter to record the take from the bore with an accuracy of +/- 5%. The consent holder shall keep a record of the extent to which this consent is exercised by recording the weekly volume of water (m^3) and rate at which water is taken and shall forward a copy of that record to the Consent Authority on request.

4. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of the 10th anniversary and each following 5th anniversary of the commencement of this consent for the purpose of:

   (a) adjusting the amount or rate of abstraction of water under condition 1, should monitoring under condition 3 indicate that the allocation is excessive for the ongoing use;

(b) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.

Issued at Dunedin this 9th day of May 2003
Reissued at Dunedin this 26th day of November 2009 to reflect a transfer of holder and correct grid reference.
Reissued at Dunedin this 2nd day of July 2010 to reflect a transfer of holder

Julene Ludlow
Manager Resource Management Administration
A234036

ORIGINAL

Otago Regional Council

Our Reference: A305245 Consent No. RM10.388.01.V2

WATER PERMIT

Pursuant to Section 104C of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Corbridge Park Limited being a partner of the Corbridge Estates Limited Partnership

Address: C/- Coopers Limited, Level 6 Harrington House, Harrington Street, Tauranga

To take and use groundwater from the Wanaka-Cardrona Aquifer

for the purpose of irrigation

For a term expiring 1 December 2035

Location of Point of Abstraction: Wanaka, approximately 1.09 kilometres north northeast from the intersection of Ballantyne Road and Wanaka-Luggate Highway (State Highway 8)

Legal Description of land at point of abstraction: Sec 67 Blk IV Lower Wanaka SD

Legal Description of lands where water is to be used: Pt Sec 64 Blk IV Lower Wanaka SD, Secs 65, 66, 67 Blk IV Lower Wanaka SD, Sec 1, Blk II Lower Wanaka SD and other land as advised in writing to the Consent Authority

Map Reference at point of abstraction: NZTM 2000: E1300534 N5042588
NZMS 260:G40 105-043

Conditions

Specific

1. If this consent is not given effect to within a period of five years from the date of commencement of this consent, this consent shall lapse under Section 125 of the Resource Management Act 1991.

2. (a) The rate of abstraction shall not exceed 50 litres per second;
(b) 4,320 cubic metres per day;
(c) 133,920 cubic metres per month;
(d) 652,320 cubic metres between 1 September in a year and 31 August in the

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following year.

3. The permit shall be exercised as directed by the Consent Authority or any Otago Regional Council approved Water Allocation Committee that operates in the Wanaka-Cardrona Aquifer.

4. The consent holder shall not use water authorised by this consent on land that receives water from an alternative supply.

Performance Monitoring

5. (a) The consent holder shall install a water meter to record the water take, within an error accuracy range of +/- 5% over the meter's nominal flow range, and a datalogger with at least 12 months data storage to record the rate and volume of take, and the date and time this water was taken. (All practicable steps shall be taken to ensure that the meter's nominal flow range coincides with required pumping rate(s). An error accuracy of +/- 10% shall apply to meters when pumping rates are below the nominal flow range.
(b) The datalogger shall record the date and time of each increment of 10,000 litres of water.
(c) The installation and maintenance of the water meter and datalogger shall be performed in accordance with manufacturer's specifications and for the water meter only, to New Zealand Quality Standard ISO 4064.
(d) The water meter shall be installed in a straight length of pipe, before any diversion of water occurs. The straight length of pipe shall be part of the pump outlet plumbing, easily accessible, have no fittings and obstructions in it, and be of a length that is at least 15 times the diameter of the pipe. The water meter shall be installed at least 10 times the diameter of the pipe from the pump and at least 5 times the diameter of the pipe from the diversion of any water.
(e) The consent holder shall ensure the full operation of the water meter and datalogger at all times during the exercise of this consent. All malfunctions of the water meter and/or datalogger during the exercise of this consent shall be reported to the Consent Authority within 48 hours of observation and appropriate repairs shall be performed within 48 hours or otherwise as soon as is practicable following the observation of malfunction.
(f) The installation of the water meter and datalogger shall be completed to full and accurate operation within 1 month of the exercise of the consent. The consent holder shall forward a copy of the installation certificate to the Consent Authority within one month of installing the water meter and associated devices.
(g) The water meter and datalogger must be serviced by a suitably qualified operator annually. Receipts of service shall be supplied to the Consent Authority by 31 July each year, and upon request.
(h) The consent holder shall provide records from the datalogger to the Consent Authority by 31 July each year and at any other time on request. Data shall be available electronically, giving date, time and flow rates in no more than 15 minute increments, via a datalogger approved by the Consent Authority.

General

6. The consent holder shall take all practicable steps to ensure that:
(a) the volume of water used for irrigation does not exceed soil field capacity of the irrigated areas;

(b) the irrigation does not cause surface runoff that would discharge into natural waterbodies;
(c) there is no leakage from pipes and structures;
(d) the use of water is confined to targeted areas;
(e) irrigation induced soil erosion and soil pugging does not occur;
(f) soil quality is not degraded as a consequence of irrigation; and
(g) loss of water, nutrients, and agrichemicals by percolation to groundwater is minimised.

7. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent for the purpose of imposing aquifer restriction levels, if and when an operative regional plan sets aquifer restriction levels.

8. The Consent Authority may, in accordance with Sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of each anniversary of the commencement of this consent for the purpose of:
   (a) adjusting the consented rate or volume of water under Condition 2 of this consent, should monitoring under Condition 5 of this consent or future changes in water use indicate that the consented rate or volume is not able to be fully utilised; or
   (b) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
   (c) ensuring the conditions of this consent are consistent with any National Environmental Standards; or
   (d) adjusting or altering the method of water take data recording and transmission.

Note to Consent Holder

1. *If you require a replacement permit upon the expiry date of this permit, any new application should be lodged at least 6 months prior to the expiry date of this permit. Applying at least 6 months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*

Issued at Dunedin this 2nd day of December 2010
Reissued at Dunedin this 23rd day of May 2012 to reflect a change to Condition 1 to extend the lapse period.
Reissued at Dunedin this 4th day of September 2013 to reflect a change to Condition 1 to extend the lapse period.

Christopher P. Shaw
Manager Consents

Consent No: 2003.273

WATER PERMIT

Pursuant to Section 105 of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Brian Lewis Hore

Address: [redacted]

To take and use groundwater

for the purpose of irrigation

for a term expiring 14 May 2028

Location of activity: Corbridge Downs, located north of State Highway 6 opposite the Ballantyne Road and State Highway 6 intersection approximately 6 kilometres east of Wanaka.

Legal description of land adjacent to point of abstraction: Sec 65 BLK IV Lower Wanaka SD

Map reference: NZMS 260 F40:096-039

Conditions:

1. This permit shall only be exercised during the period of 1 September to 30 April inclusive and take shall not exceed;
   (a) 17 litres per second;
   (b) 1,346 cubic metres per day;
   (c) 9,422 cubic metres per week;
   (d) 40,515 cubic metres per month.
   (e) 324,120 cubic metres per year.

Note: water may be taken at any time for domestic or stock water purposes.

2. The consent holder shall take all practicable steps to ensure that:
   (a) the volume of water used for irrigation does not exceed soil field capacity of the irrigated areas;
   (b) the irrigation does not cause surface runoff;
   (c) leakage from pipes and structures is avoided;
   (d) the use of water onto non-targeted areas is avoided;
   (e) irrigation induced soil erosion and soil pugging does not occur;
   (f) soil quality is not degraded as a consequence of irrigation; and
   (g) loss of water, nutrients, and agrichemicals by percolation to groundwater is minimised.

3. The consent holder shall install a water meter to record the take from the bore with an accuracy of +/- 5%. The consent holder shall keep a record of the extent to which this consent is exercised by recording the weekly volume of water (m^3) and rate at which water is taken and shall forward a copy of that record to the Consent Authority on request.

4. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within 3 months of the 10th anniversary and each following 5th anniversary of the commencement of this consent for the purpose of:
   (a) adjusting the amount or rate of abstraction of water under condition 1, should monitoring under condition 3 indicate that the allocation is excessive for the ongoing use;
   (b) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.

Issued at Dunedin this 14th day of May 2003

Marian Weaver
Manager Consents
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