

# Technical Memo

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<b>To:</b>	Neil Harkin (Resource Consent Planner)
<b>From:</b>	Richard Powell (Infrastructure Development Engineering Manager)
<b>Date:</b>	Wednesday, 17 December 2025
<b>Subject:</b>	<b>Fast-Track Approvals Act 2024 - s53 Comment Technical Memorandum – Property &amp; Infrastructure</b>

## 1. Introduction

The purpose of this memo is to summarise QLDC's Property & Infrastructure Department (P&I) opinion on water supply, wastewater, stormwater, and transport to support QLDC's response to the Expert Panel under section 53 of the Fast-Track Approvals Act 2024 for the Ayrburn Screen Hub application. I note that the Development Engineering team at QLDC has provided a separate technical memo that addresses the public roading intersection upgrade at Arrowtown - Lake Hayes Road/Speargrass Flats Road.

The memo identifies key issues requiring clarification or further information and explains where additional work is pending. It considers existing servicing networks for the Arrowtown / Lake Hayes catchment, and outlines where conditions may be required to manage residual risk.

## 2. Key Issues

### 2.1. Water Supply

The Ayrburn Precinct (existing development within the Waterfall Park Zone) is currently serviced via a private internal infrastructure network, which is supplied with potable water from QLDC's Lake Hayes Water Supply Scheme (**Lake Hayes Scheme**). The connection point between the two is at the intersection of Arrowtown-Lake Hayes Road and Hogans Gully Road. The Ayrburn precinct is located within the Lake Hayes Scheme boundary, however the proposed Screen Hub area is not. The Lake Hayes Scheme was never intended to service this area. Image 1 below shows the subject site in relation to the Lake Hayes Water Supply Scheme Boundary.

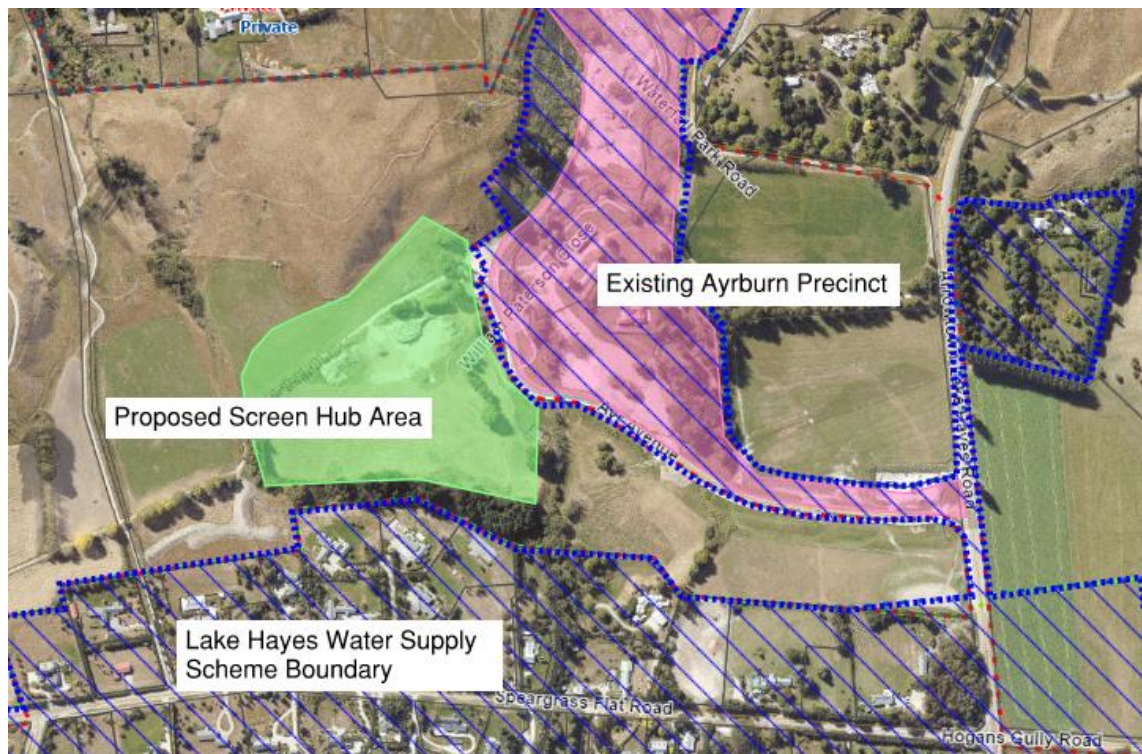


Image 1: Scheme Boundary and subject site

There is insufficient capacity within the Lake Hayes Scheme to service the proposed development.

Appendix 16 provided with the Screen Hub application is based upon a 2018 water supply modelling report which identified an allocation of 45 litres per second water supply capacity as being available within the Lake Hayes Scheme to service development within Waterfall Park and Ayrburn. That modelled capacity has progressively been allocated as development land use consents have been granted within the Lake Hayes Scheme and the Ayrburn precinct, and it is out of date.

The digital model of the Lake Hayes Scheme requires recalibration. Recalibration has been requested by QLDC but results cannot physically be obtained earlier than March 2026.

The results are required to understand *what* upgrades are required to the Lake Hayes Scheme in order for there to be capacity in the system to supply the proposed Screen Hub project (however they are not considered fundamental to understand that there is no current capacity – QLDC can already confirm this). They are also required to inform future re consenting of QLDC's water take for the Lake Hayes Scheme, and any wider upgrades required to the Scheme to accommodate growth plans within the Scheme boundaries. All of these upgrades should occur at the same time.

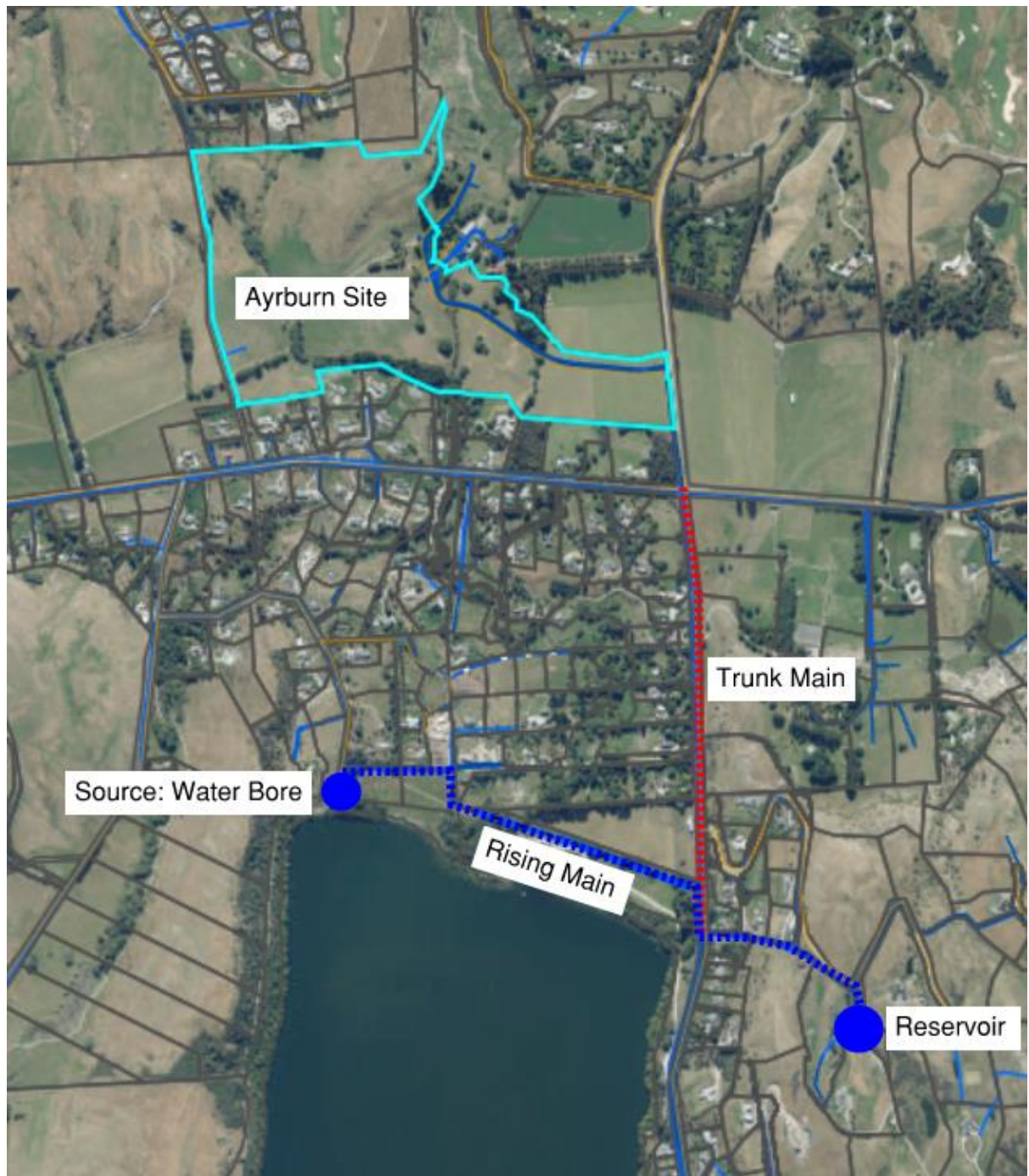
There are four critical components that likely require upgrading in order to provide water to the Project:

- **Source:** The bore and pumps located at the northern end of Lake Hayes must be capable of providing additional water. This will require that a new consent be sought from ORC to increase the capacity of water that can be taken.
- **Rising main:** A modelling assessment will need to be undertaken to confirm if the rising main is suitably sized to convey the increased flowrate from the Source to the Reservoir.



- **Reservoir storage:** Additional storage capacity within the network is required.
- **Trunk Main:** Approximately 1.2 km of water pipe along Arrowtown–Lake Hayes Road needs upgrading or duplication due to high head losses.

Image 2 below shows the location of these key components in relation to the subject site.



**Image 2: Network components**

Without full knowledge of the required upgrades, which will not be clear until the recalibrated and updated modelling is available in March 2026, and given that QLDC has no allocated funding for these upgrades at present, it is recommended that a condition of consent be imposed to deal with this situation.

I have reviewed the condition recommended to be imposed as shown in the QLDC condition set and I consider it to be appropriate from a technical perspective in this case.

## **2.2. Wastewater**

The Ayrburn precinct is serviced by an internal private network that pumps to QLDC's wastewater trunk main on Arrowtown–Lake Hayes Road, which then conveys flows to the Shotover Wastewater Treatment Plant.

Unlike the water supply scheme, the wastewater scheme services a much larger area. Current upgrades are designed to provide capacity for growth across the Wakatipu Basin through to 2048. The proposed development represents a small proportion of this capacity and can therefore be accommodated without triggering additional upgrades.

*It is widely known that the Shotover Wastewater Treatment Plant has compliance issues when it comes to the disposal of treated wastewater, these compliance issues are being worked through with an emergency solution currently in place and a long term disposal strategy being developed, while this work progresses additional flows are able to be accepted into the Wastewater Treatment Plant.*

The Application includes Appendix 16 which is CKL's Water and Wastewater Assessment dated 30 June 2025. I agree with the wastewater sections of this report and agree that the existing scheme has sufficient capacity to receive the flows and volumes expected from the proposed development.

The application has proposed condition 15(b) which suitably covers the consent holder's requirements to gain Engineering Acceptance and covering the cost of making the connections.

## **2.3. Stormwater**

The approach to stormwater is set out in Appendix 13 to the Application.

The proposed stormwater collection, attenuation, and treatment system appears feasible and capable of meeting the QLDC Land Development and Subdivision Code of Practice 2025 (CoP) requirements. The existing Ayrburn precinct stormwater system is an exemplar for managing and treating stormwater discharges to sensitive environments such as Lake Hayes. The proposed system appears to be an extension of this approach which has P&I's support.

To confirm appropriate sizing and design, a condition of consent should require an independent peer review (through QLDC) of the Stormwater system at detailed design stage, with all costs borne by the consent holder. The application includes a proposed condition (15(d)) that covers this requirement, I agree with the proposed condition.

## **2.4. Transport**

Access to the Screen Hub is proposed via Ayr Avenue, a private road that also serves the existing Ayrburn precinct and connects to Arrowtown–Lake Hayes Road.

The access and internal network appear suitable and compliant with CoP minimum requirements.

The Development Engineering team at QLDC has provided a separate technical memo that addresses the public roading intersection upgrade at Arrowtown - Lake Hayes Road/Speargrass Flats Road.

I agree with Development Engineering that a condition of consent should require that the required intersection upgrade and any other network improvements necessitated by the development be funded by the consent holder and delivered prior to occupation of the development. This approach ensures the safe operation of the transport network.

### **3. Information Gaps / Clarifications Required**

There is a lack of validated (post-calibration) water modelling to confirm capacity and to understand the extent of upgrades required. Due to the timing of availability of that modelling, a condition is required to deal with the lack of water supply capacity and more specifically, funding.

### **4. Overall Position**

From a P&I perspective, the Ayrburn Screen Hub proposal is capable of support in principle, subject to the above-mentioned clarifications and recommended conditions.

P&I's comments are based on currently available information and may require refinement following updated evidence or draft conditions.