

**QLDC Council**  
**10 December 2020**

**Report for Agenda Item | Rīpoata moto e Rāraki take : 12**

**Department: Property & Infrastructure**

**Title | Taitara Cardrona Valley Water Supply Scheme and Budget Reforecast**

**PURPOSE OF THE REPORT | TE TAKE MŌ TE PŪRONGO**

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- 1 The purpose of this report is to delegate the authority to the Chief Executive to enter into a Development Agreement with Cardrona Valley WTP Limited to participate in the procurement of a drinking water supply.
- 2 To seek Council's approval of the revised budget and financial commitments for the Cardrona Valley Water Supply project.

**EXECUTIVE SUMMARY | WHAKARĀPOPOTOTANGA MATUA**

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- 5 Pursuant to recent successful negotiations on wastewater servicing for Cardrona, Queenstown Lakes District Council (QLDC) has been in discussions with Cardrona Valley WTP Limited (CVWTP), an entity operated by the investors of Mount Cardrona Station (MCS) (the same investors of Cardrona Valley Wastewater Limited (CVWL) that are delivering waste water infrastructure), about a possible agreement to participate in the procurement for design and construction of a dual-source drinking water scheme with abstraction systems from Pringles Creek and Cardrona River, a water treatment plant, water storage reservoirs, rising and falling mains and associated pumping and inlet equipment (headworks) for the MCS development that will enable an opportunity for significantly improved drinking water infrastructure for the Cardrona Valley.

**RECOMMENDATION | NGĀ TŪTOHUNGA**

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That Council:

1. **Note** the contents of this report
2. **Delegate** the authority to the Chief Executive to enter into the Development Agreement and ancillary documents/agreements to participate in the procurement of a new water scheme including dual-source abstraction, water treatment and storage network by others, and for Council to design and construct an inbound connection to the Cardrona Village.
3. **Approve** the project's capital budget [REDACTED] required to enter into the Development Agreement:

a. [REDACTED]

b. **Note** that the budget approval sought acknowledges that the capital programme for the LTP 21-31 will be formally confirmed through the normal statutory process with adoption in June 2021.

c. [Redacted]

4. [Redacted]

[Redacted]

6. **Delegate** the authority to the Chief Engineer to implement low-flow design guidelines, water metering, and water demand management policies in establishment of a new Cardrona Water Scheme boundary with a metered pay-per use charge implemented across users.

7. **Agree** that the report and resolution should remain public excluded but that the Chief Executive be delegated the authority to make a public statement at an appropriate time. This report, and specifically the purchase price and/or DC credit or guaranteed capacity rights of any third party assets acquired may be made public only after all conditions of applicable agreements have been met and after full settlement has been made on the settlement date, and procurement process concluded.

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25/11/2020

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- 6 The investors of Mount Cardrona Station (MCS) will be proceeding with a drinking water scheme for the Mount Cardrona Station Special Zone Land development which will result in another private drinking water scheme in the area. MCS has offered the opportunity to collaborate with QLDC to build this scheme to a specification that will ensure compliant drinking water servicing for the whole Cardrona village. The scheme uses pre-existing ORC-consented water permits and land-use rights.
- 7 This opportunity is not limited to the investors of Mount Cardrona Station. All private schemes are invited to vest their schemes in Council or make proposals to integrate with the new scheme. An integrated water scheme is the safest and best possible outcome for the growing Cardrona community. It is expected that the new drinking water scheme will be operational by March 2022.

### **Public Health & Wellbeing and changes in the Drinking Water Standards**

- 8 The need for investment in drinking water supply for Cardrona is a public health and wellbeing need. QLDC 3 waters asset management strategy objective for Cardrona is to have zero illness attributable to drinking water supply.
- 9 There will be significant changes in the New Zealand Drinking Water Standards (DWSNZ).
- 10 Importantly, in response to the Havelock North incident (2016) which saw multiple fatalities and thousands of people with sickness attributed to drinking water contamination, and the Government's inquiry into the events, the DWSNZ are currently going through significant changes with (1) the establishment of Taumata Arowai in July 2020 – Aotearoa's dedicated regulator of the three waters, (2) a new Water Services Bill (July 2020) has been introduced for the first reading in the House prior to the 2020 Election, and with (3) an administrative reform pending. The reform will consider amongst themes of collaboration between territorial authorities in the interim, various options for long-term centralisation of water services with administration and responsibility to migrate away from territorial authorities to larger regional authorities or council controlled organisations.
- 11 The Water Services Bill is projected to be enacted in the second half of 2021. Until then Taumata Arowai is not fully operational and the Ministry of Health will remain the regulator for drinking water safety in the interim.
- 12 Whilst the detail and the impact of changes is still being worked through, significant legislative changes to drinking water supply operations is imminent.
- 13 Through these changes, it is expected that many small operators will be impacted the most, with significant investment required to make existing small schemes compliant with the new DWSNZ and water services bill. Cost that would be passed on to the users which could be in the order of \$4,500 (capital) per person and \$260 per annum per person for Cardrona as a non-council owned scheme in Otago according to the BECA report "[Cost Estimates for Upgrading Water Treatment Plants to Meet Potential Changes to the New Zealand Drinking Water Standards – 2018](#)," a report procured by the Central Government.

See Appendix 8 for an excerpt containing Table 3-10 with highlighted estimate of costs to non-council owned schemes in the Otago region.

- 14 Small scheme operators can expect to see:
  - a. Increased and immediate investment requirement in backflow prevention;
  - b. Increased investment required in water schemes and treatment to meet DWSNZ;
  - c. Required to develop and administrate a drinking water safety plan and a source water risk management plan (catchment);
  - d. Increased costs of source water quality monitoring and testing; and
  - e. Increased personal liability to directors with heavy fines for incidences, up to and including imprisonment.
- 15 It is expected that many small scheme operators will be heavily impacted by these changes, and possibly unable to meet the requirement affordably, hence motivating a desire to vest inadequate assets in territorial authorities in consideration and mitigation of the increased costs and risks to operators.
- 16 QLDC has some responsibility to residences serviced by private schemes – such that where schemes are risky or non-compliant, QLDC in cooperation with the drinking water assessor and Ministry of Health need to take steps towards enforcing an action plan for ongoing access to safe drinking water. This is however focused at the household rather than the supplier. Through the regulatory changes, QLDC's risk will also increase in regard to increasing responsibilities toward non-compliance in private schemes. This risk will be highest in the short to medium term whilst Taumata Arowai and the reformed regional water organisations have not been fully established. Once established Taumata Aorwai will take a lead role in this but until then QLDC are exposed.
- 17 Notwithstanding the above, there is additional risk associated with public perception that QLDC is currently the sole agency responsible for the safety of private drinking water supplies.
- 18 Albeit these risks could be beyond QLDC control, the changes require QLDC to have a “need to know” over the status of all private schemes in our district to manage the risks, taking action to motivate steps toward compliance, developing outline plans, and/or completing acquisition/amalgamation. Hence there is a mutual benefit to progress a public scheme that seeks to concentrate the various private schemes in Cardrona.
- 19 QLDC has undertaken proactive initiatives through recent outreach to ensure that private schemes are aware of the drinking water legislative changes and taking steps towards either (a) investment or compliance with the DWSNZ and legislative changes, or (b) planning for vesting arrangements with QLDC in lieu of further investment and continued operation.

## Existing Schemes

20 Cardrona Village existing drinking water supply arrangements currently comprises various private schemes in and around the Cardrona village. The table below summarises the schemes' relative volumes, source types, components, expiry dates and ownership.

Cardrona Water Scheme and Permit Summary												
Name	Consent No.	Type	Source	Scheme Summary	Capacity (m3/d) - Consent Constraint Normalised Annually and converted to daily (m3/d)	Expiry (Year)	Holder	Servicing Area	Key Consent Conditions	Allocations	Comments	
MCS-1	2009.191.V2	Potable	Pringles Creek Surface Take, and Groundwater Near Cardrona River	Proposed Scheme: Dual Source Abstraction, Pump Station, Raw and treated water reservoirs, UV and cartridge filtration and Chlorination, rising mains and falling mains	1,049	2030	Mount Cardrona Station Ltd	Public: Cardrona Village and MCS Development	Abstraction from Pringles Creek must maintain no less than 15 l/s residual flow in Pringles Creek	-	-	
MCS-2	2009.435.V1	Irrigation*	Pringles Creek Surface Take	Integral to above.	863	2030	Mount Cardrona Station Ltd	Public: Cardrona Village and MCS Development	Abstraction from Pringles Creek must maintain no less than 25 l/s residual flow in Pringles Creek	-	*MCS undertaking optioneering to determine how much of this consent can convert as addition flow to the MCS-1 consent **Uncertain Seasonal Availability.	
CWSL/Kathy Lynne	RM17.307.01	Potable	Groundwater Near Cardrona River	Unsecured abstraction bore from the Cardrona River, a UV disinfection and chlorine dosing treatment plant, small tank farm, rising and falling mains and a reticulated network.	500	2032	Cardrona Water Supply Ltd/Brooklynn e Holdings	Cardrona Hotel, Miners Rise, Soho St. Development, Select Arrangements	-	32+ DUE	-	
Miners Rise	-	-	-	Booster pump, rising and falling mains and a small tank farm	-	-	-	Miners Rise	-	6 DUE	Scheme draws water from the bulk water supply provided by the CWSL scheme (~ 13 m3/day) and delivers the water via its assets to the properties in Miners Rise	
Benbrae Apartments	2006.377.V1	Potable	Groundwater near Cardrona River	Abstraction bore, water treatment plant, rising and falling mains and a small tank farm	77	2031	Cardrona Ltd.	Benbrae Resort Apartments, a 44 unit residential complex	-	44 Units Various Sizes, 28 DUE	-	
Pure H2O Group Ltd.	RM17.212.01	Potable	Pringles Creek Surface Take	abstraction well from Pringles Creek, UV treatment plant, small tank farm, rising and falling mains and a reticulated network	24	2042	PureH2O Group Ltd.	Pringles Creek Rd.	-	Currently Services 8 DUE / 11 DUE Maximum Capacity	-	
Cardrona Distillery	RM18.297.01	Potable	Groundwater	Commercial Use for irrigation and Distillery production	77	2054	Zescent Group Ltd.	Cardrona Distillery	-	1 Distillery	-	

21 Currently there are no public drinking water schemes in the Cardrona Village, and the present various small and private schemes are deemed a risk to public health based on the Ministry of Health reporting as per appendices G and F, and contingent liability to QLDC as a Territorial Authority under the new proposed water services bill and changing DWSNZ.

### The Need for Change, History of Effort and Change Opportunity.

22 In response to the 2012 Norovirus Outbreak in Cardrona, Southern Health issued a letter to QLDC notifying the outbreak of gastroenteritis at Cardrona and urging that capital programmes for delivery of improved 3 waters infrastructure in Cardrona be prioritised and brought forward. This letter is included as Appendix E.

23 In response to the above, QLDC aligned investment objectives in the 3 Waters Asset Management Plan and LTP to have zero illness attributed to drinking water. Business case works undertaken in 2015 (and with a refresh in 2017) have demonstrated that a new

QLDC drinking water supply scheme is needed for the Cardrona Village as it is currently serviced by various high risk private schemes that are unable to supply safe and secure Health Act 1956 and Drinking Water Standards for New Zealand (DWSNZ) compliant drinking water and cater for development.

- 24 The Ministry of Health publishes the [Annual Drinking Water Report](#) which has for two years in a row from 17/18 and 18/19 demonstrated that much of Cardrona is being serviced by a scheme that is non-compliant with the Health Act 1956. This is because the operator has failed to provide adequate safe drinking water and has not taken reasonable steps to protect source water from contamination, nor take all appropriate actions to protect public health after an issue was discovered. The same scheme failed and failed the bacteriological Standards because E. coli was detected in 2.8 percent of monitoring samples, and it took inadequate actions to address that issue and sampling was inadequate. This information is attached as appendices F and G with source references.
- 25 As the 19/20 Annual Drinking Water report is not yet available to assess the relevance of the above, QLDC in consultation with Southern Health remain concerned that the track record of the operator's failure to hold paramount the public health wellbeing in perpetuating a public health risk. QLDC has lodged an official information act request to obtain this information sooner than the public. The information will be available on 3 December 2020.
- 26 With few other alternatives available at the time, the Council Infrastructure Committee previously delegated the authority to the GM – Property & Infrastructure to negotiate a sale and purchase of Cardrona Water Supply Limited's (CWSL) drinking water supply scheme (23 March 2017). This sale and purchase agreement has been unsuccessful over matters relating to valuation of the assets. Various other schemes were considered but none have comparable capacity sufficient to service the village. Further attempts to negotiate sale and purchase have been pursued to no avail, but QLDC remains welcoming to such an acquisition.
- 27 Since then, the MCS developer has activated the development with wastewater infrastructure delivery underway and for a drinking water arrangement yet to be resolved in time for 2021 construction. In the short to medium term, this represents a new alternative to the acquisition of CWSL and Benbrae schemes but with scope for both to progress toward a combined scheme as the best outcome. As a package, QLDC's view is that it could not meet its objectives by collaborating with another permit-holder or developer in the Cardrona area for the development of a public scheme in the same way as is possible with MCS, given the combination of MCS's existing need to develop a scheme (and steps it has already taken to that end), and exclusive ownership of appropriate land and large water permits. QLDC is also unable to develop the scheme alone because of the shrinking-cap on water-take permits and a lack of access to land.
- 28 In early planning of a new scheme QLDC has made statement to all private scheme operators including CWSL and Benbrae that the opportunity to vest assets at an agreed value is still available and welcomed to achieve an integrated scheme. Both CWSL and Benbrae have declined.

- 29 Other options are being considered for future consent security with CWVTP that seek to vary the existing irrigation water permit (2009.435.v1) into increased capacity in existing potable drinking water permits. This option will be progressed simultaneously, and does not cancel-out or preclude all needs for the CWSL scheme, or any other private scheme for that matter.
- 30 Should QLDC participate in the design of the new CWVTP scheme design, the design specification will allow for all other schemes to be acquired and integrated. Acquisition timing/certainty will be beyond QLDC control, but can be allowed for through all stages of design, construction, and post-construction.
- 31 As Cardrona is a high country, arid alpine environment, water is a scarce and precious resource in a sensitive catchment that must be managed with due care to environmental sustainability. Safe and secure drinking water with end-to-end consistency for generations is best achieved through global management of drinking water consents as opposed to various small schemes operated by different parties.
- 32 Demand management will be a critical component to this scheme to ensure low water usage, as a cornerstone the long-term sustainability of safe and secure drinking water in this sensitive catchment.

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- 34 QLDC has previously collaborated for success on delivery of a wastewater treatment plant for Cardrona after 20 years of various feasibility studies, option assessments, business cases which were each challenged by various constraints. The proposed new water treatment scheme would likely follow the same course and format for negotiations and contractual arrangements with CWVTP as was used on wastewater. The format for delivery will largely be re-used with some bespoke difference in procurement, commercial arrangements and technical detail of the infrastructure assets for clean water.

**Proposed Scheme – Headworks (Dual Water Source Abstraction, Water Treatment Plant and Storage)**

- 35 In essence, the parties contemplate that:
- a. Establishment of scheme: To enable development of the MCS Resort (Resort), CWVTP will establish the Water Scheme (Stage 1 Works) to abstract and treat water from the dual source water take for storage and reticulation to both MCS and the Cardrona



Village. Upon satisfactory completion of Stage 1, QLDC will own and operate the Water Scheme and all associated water take permits.

- b. A new QLDC Inbound pipeline is required to realise the benefits of the new scheme into the existing Cardrona Village.
  - c. Negotiations between QLDC and third-parties are required to complete acquisition of private schemes which will require some remedial works for upgrade to achieve compliant integration into the scheme (Stage 2 Works). These negotiations will progress in concert with all Stage 1 Works. QLDC's negotiating position with third-party scheme operators is strengthened by the changing DWSNZ, establishment of competitive tension in the village with serviceable properties being compelled to connect by resource consent conditions, and QLDC's ability to charge availability charges.
  - d. Future expansion: The Water Scheme will be periodically upgraded by QLDC in subsequent stages to enable delivery of additional capacity for Cardrona Valley to sustain maximum development potential of 1,800 Dwelling Unit Equivalents – sizing matched to the ultimate wastewater servicing which was similarly sized to the present-day Arrowtown/Millbrook split.
  - e. Whilst staging will be further optimised through design to balance growth and funding, preliminary staging contemplates staging allowance for 50% of ultimate capacity constructed initially with two future upgrades of 25% each to enable ultimate capacity. Some elements of future upgrades could be partially or fully offset by acquisitions of third-party schemes.
- 36 QLDC and CWVTP would negotiate the Development Agreement to facilitate the development and future expansion of the water supply headworks. The agreement will be subject to funding confirmation and other conditions and if Council does not wish to proceed, the agreement can be cancelled.
- 37 The Water Scheme will be constructed by CWVTP and will vest in QLDC for the purposes of servicing drinking water supply needs of the Cardrona Valley. CWVTP is the project entity for drinking water infrastructure delivery behind the Resort and Cardrona Valley Wastewater Ltd (CVWL).
- 38 The key commercial benefits to QLDC of the arrangement are that:
- a. QLDC acquires the dual-source water-take permit from CWVTP (a very limited resource due to the shrinking cap) and any further expandable water-permits.
  - b. QLDC acquires all land-use easements, land use consents, and resource consents from CWVTP which are needed for the development and operation of the water scheme, headworks and treatment plant. QLDC does not otherwise have land, permits or consents available.



- c. A key benefit to QLDC amidst the timing of design is that the scheme can be designed in accordance with and to allow for changes in the new DWSNZ under the new water services bill.
- d. QLDC benefits from CWVTP assuming procurement and construction risk and responsibility for the project.

39 The commercial benefit for CWVTP would be the assurance of future capacity that it gets from QLDC, to enable development of the Resort, and establishment of a scheme without the cost and risk of managing the operations of a drinking water supply scheme under the new and changing drinking water standards.

40 The commercial benefit for third-party private scheme operators is the opportunity to secure improved drinking water supply whilst preserving development certainty, and to vest all assets and avoid any latent capital expenditures, contingent liabilities and ongoing risks in maintaining private scheme operations.

#### **Proposed Scheme – QLDC inbound Pipeline**

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42 The opportunity for CWVTP to construct a portion of the inbound pipeline infrastructure reducing the scope of QLDC's inbound pipeline project will be explored to further combine shared efficiencies and offset shared costs of the inbound pipeline for the Cardrona Village.

43 The opportunity to re-use as much existing infrastructure as possible where and when acquisition of third-partiers schemes will be allowed for to assist with affordability and any unnecessary redundancy, maintenance or depreciation costs for existing schemes.

#### **Proposed Scheme - Sustainability and Allowances for Future Acquisition and Integration**

44 All existing schemes in the village are considered to be high risk schemes under existing DWSNZ and the Health Act 1956 and under any further changes to DWSNZ and the water services bill. The value of third-party schemes rests primarily in the relocation ability of

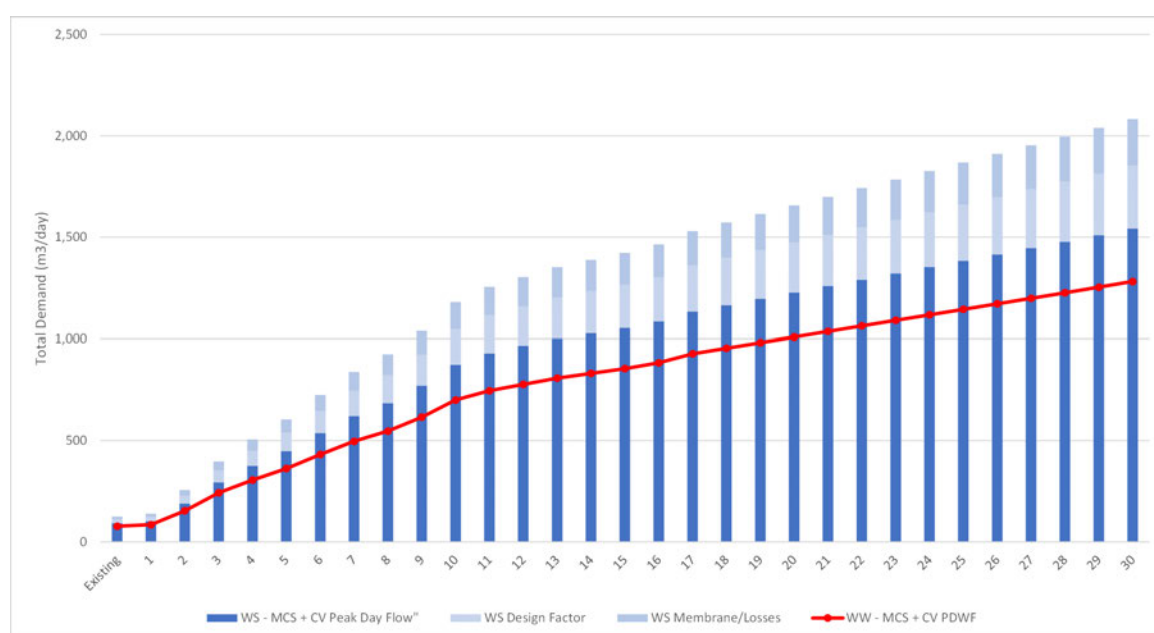
consented water permit and abstraction rates to be re-allocated within the catchment and to be varied and/or combined into other water permits. Any existing private infrastructure that can be re-used will be considered in design of a new village scheme to reduce new capital costs should those schemes eventually vest assets in QLDC. This may include reservoirs, reticulation network and booster pumps but in almost all cases excludes the abstraction headworks and water treatment facilities.

- 45 Otago Regional Council (ORC) has in recognition of over allocation of the water catchments indicated that the Cardrona Valley has a 'shrinking cap' on water permits, meaning no increases in yield will be given. Given the high country arid environment unique to Cardrona which is unlike other parts of our district that are advantaged by proximity to the abundance of fresh water availability in Lakes Wanaka, Wakatipu and Hawea, low water usage and demand management are required immediately to enable a sustainable and affordable water service to Cardrona.
- 46 Sustainable water design guidelines in the Mount Cardrona Station (MCS) Operative District Plan zone rules have restricted potable water usage in the development area to ensure low water usage and demand design criteria to exclude irrigation allowances from drinking water supply, promoting rain-water re-use systems and provisioning for water meters and QLDC demand management targeted rating on a volumetric unit basis at inception. This is part of a suite of other statutory requirements embedded to ensure water sustainability is implemented and enforceable in the resort development. These measures are imperative in consideration of the shrinking cap in the high country, arid environment and sensitivity of the water catchments. Cardrona Village (and any developable or serviceable land outside of the MCS special zone) do not currently have these same or similar sustainability policies in place.
- 47 To enable a drinking water supply that sustainably caters for the ultimate development potential in Cardrona, the proposed scheme requires water demand management implementations that mirror the ORC's application of a 'shrinking cap' on water permits to manage the overall allocated catchment, and mirror MCS Operative district Plan zone rules on the Cardrona village side. The new scheme proposal suggests low water volume design guidelines that allow for 1,000 – 1,180 L/day per household as opposed to the unsustainable design guidelines in the various existing private schemes which currently allow for up to 4,000 L/day in some cases. The new water scheme proposal will implement water metering and demand management that is integrated with volumetric targeted-rating/charges to permitted water users within the scheme boundary. The new scheme proposal will seek to curtail water rights from 4,000 L/day to 1,000 L/day through any acquisition and integration of third-party schemes and existing users. Costs associated with retrofits and connections will be borne by the connecting users.
- 48 The need to acquire CWSL's or others schemes remains as an environmental cornerstone to viability of any long-term servicing options, but whilst the opportunity with CWVTP to provide a new scheme delivers early confidence to service the existing village and cater for the short to medium-term development, it also provides more time to secure other third-party private schemes or progress alternative arrangements for the ultimate or long term development needs. The ideal outcome is a concentration of all various private and

small schemes vested in QLDC to eliminate the risks of continued private and small scheme operations that perpetuate public health risks.

## Demand & Future Expansion of Water Take Consent

49 The below figure demonstrates the ability of the proposed new drinking water scheme to meet current and medium term development drinking water servicing demands through existing consented water permits on a 30 year design horizon that tracks the wastewater servicing and development horizon, and demonstrates the time-frame beyond which the need for additional water permit consents are triggered to continue servicing toward ultimate demand.



50 The above is modelled on the basis that MCS is successful with re-allocating the irrigation consent to potable water (MCS-1 and MCS-2 water permits), and acquisition of any further third party schemes are successful.

51 MCS are progressing the feasibility assessment of varying the MCS-2 irrigation consent to provide QLDC with increased confidence on the scheme's ultimate ability to scale for development without future or latent risk of having to acquire other schemes. This will be established as a key condition for resolution in the proposed Developer Agreement.

52 The total consent needs for the ultimate demand are presented in three stages:

- i. Stage 1 (First 7 years): Total of 860 m<sup>3</sup>/day
- ii. Stage 2 (Years 8 – 16): Total of 1,460 m<sup>3</sup>/day
- iii. Stage 3 (Years 17 – 31): Total of 2,100 m<sup>3</sup>/day

53 The proposed new drinking water supply scheme (with MCS-1 water permit) is able to provide a turn-key solution for 1,049 m<sup>3</sup>/day, with the balance to be made up from either (or a mix of):

- a. Varying MCS irrigation consent (MCS-2) to potable water – a process which is progressing and could enable up to an additional 863 m<sup>3</sup>/day.
  - b. Future acquisition of third party schemes – namely CWSL for 500 m<sup>3</sup>/day.
  - c. Future acquisition of various other small schemes including Benbrae (77m<sup>3</sup>/day) and Pringles Creek Road (24 m<sup>3</sup>/day), Miners Rise (13 m<sup>3</sup>/day), and/or the Distillery (77 m<sup>3</sup>/day) if possible, cumulative total of 114 m<sup>3</sup>/day to 191 m<sup>3</sup>/day.
- 54 The above demonstrates that MCS consents alone can allow the scheme to support foreseeable development for at least 10-15 years before the next stage of acquisition of third-party scheme or variation of water supply permits are required.
- 55 Noting that in that time, the motivation for all pending third-party scheme operators to negotiate sale and purchase or agreements or to vest in QLDC will be increasingly motivated by various levers including:
- a. The changing drinking water standards implicating imminent investment requirements, increased operating costs and increased personal liability and risk of operations.
  - b. Competition with a compliant QLDC public scheme
  - c. QLDC's ability to levy availability charges, and where available resource consent conditions that require connection to a QLDC scheme as and when available.

### **Progress to date**

- 56 QLDC and CWVTP have been in discussions around the possibility of collaborating to deliver the Water Scheme including some possible high-level commercial terms which would feature in the proposed Development Agreement. Ancillary documentation would also be required to facilitate development and operation of the Water Scheme.
- 57 QLDC and CWVTP would also agree the forms of tender documents to procure the water scheme infrastructure, and coordinate the public letting of those tender documents, including a joint effort to evaluate the tender submissions to resolve a preferred tender. Those contracts will be:
- a. A contract for the construction and commissioning of the Water Scheme, to be entered into by CWVTP (as principal) following a public tender process (with QLDC's approval) and novated to QLDC on completion of the plant;
  - b. A contract for a 36-month period of operation and maintenance of the plant by the same contractor who carried out the construction, to be entered into by CWVTP and novated to QLDC on completion of the plant (O&M Contract).

Both contracts will be carried out by the same contractor. A separate design contract is also likely and the procurement approach is intended to be the same for that contract.

### **Proposed Scheme Programme**

- 58 The parties contemplate that the Development Agreement will be finalised in January 2021 to allow for design to commence in early 2021 and for completion in autumn 2021.
- 59 Procurement of the physical works will commence thereafter in winter 2021 with construction commencing in spring 2021 for a duration of up to 7 to 8 months.
- 60 The plant will be operable in March-July 2022.
- a. Note the Wastewater Treatment Plant Scheme is programmed to be operational in September 2021.
  - b. Payment from QLDC upon completion and settlement would be required from Year 2 of the LTP; July 2022.

## **ANALYSIS AND ADVICE | TATĀRITANGA ME NGĀ TOHUTOHU**

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- 61 The following practicable options are to be considered.
- 62 Option 1 – To not progress the Development Agreement with CWVTP and increasing funding contribution thereby declining to participate in the water scheme (with permitted dual source abstraction system, a water treatment plant and storage headworks to be procured by others that will vest in QLDC upon completion).

### *Advantages:*

1. Avoidance of contract obligations and associated risks.
2. Avoidance of having to commit financially.

### *Disadvantages:*

1. Perpetuates increased number of private schemes, whilst the scheme might still be vested in QLDC anyway without capacity and design for the Cardrona Village.
2. No feasible alternative solution to 'go it alone' as there are no other water-take permits (in a shrinking cap), nor land available for use, nor land-use consents.
3. No feasible alternative collaboration option which would achieve QLDC's objectives.
4. Increased pressure to negotiate an alternative scheme with a larger number of other third-parties (small schemes).
5. No solution perpetuates the significant risk of contamination of unsecure drinking water supply due to lack of public and compliant schemes (Norovirus outbreak, 2012), and under the proposed DWSNZ will expose QLDC to risks as the Territorial Authority.
6. Existing private water treatment plants are not complying with DWSNZ and the Health Act 1956.

7. Growth in Cardrona will be restricted due to insufficient drinking water supply capacity – this could restrict ability to fund the wastewater treatment plant.
  8. Does not allow for meeting the objective to consolidate water treatment infrastructure in the Valley, requiring several private systems (CWSL, Benbrae, Miners Rise, etc.). No economies of scale. Cost and risk of QLDC then having to own and operate multiple small schemes if/when private operators discontinue services.
  9. Does not enable shovel ready construction projects to commence with widespread economic benefits to our district.
- 63 Option 2 – To approve negotiation and entry into the Development Agreement with CWVTP, and increasing the funding contribution and thereby proceed to participate in the water scheme (with permitted dual source abstraction system, a water treatment plant and storage headworks to be procured by others (subject to QLDC involvement/requirements as above) that will vest in QLDC upon completion).

*Advantages:*

1. New consented and secure dual-source abstraction system, water treatment plant, and storage headworks are designed and built to meet immediate and long-term DWSNZ, Health Act 1956 and water services bill with tolerance for change.
2. Mitigate the significant risk of contamination of water supply due to current non-compliant private schemes. (Norovirus outbreak, 2012).
3. Improved level of sustainability and management of the shrinking cap in the Cardrona Valley.
4. Exploit the opportunity which provisions availability of water-take permits, land-use rights, land-use consents and easements as part of the vesting of WTP assets by CWVTP to QLDC; mitigating QLDC's risks of land-availability under any alternative scenarios.
5. Enabling growth in Cardrona which was previously restricted due to insufficient drinking water supply capacity – and mitigate the risk of development restriction which would detriment the ability to fund the new wastewater treatment plant.
6. Allows for consolidation of water-take permits in the valley and resource management for economies of scale – limits cost and risk of owning and operating multiple public schemes.
7. Enables shovel ready construction projects to commence with widespread economic benefits to our district.

*Disadvantages:*

1. QLDC contract obligations require construction of a pipeline within the project programme, which is feasible but exposes risk of default and cost overruns.

2. Financially committed with no ability to exit on funding; accepting risks and proposed mitigations.
3. Need to acquire third-party schemes to cater for ultimate demand.
4. Cost and risk of acquisitions, management of upgrades and integration.

64 This report recommends **Option 2** for Council to approve [REDACTED] [REDACTED] participate in the drinking water supply scheme (with consented dual-source abstraction system, water treatment plant and storage headworks to be procured by others that will vest in QLDC upon completion) subject to conditions (i.e.: Due-Diligence, finance approvals, etc.) in the Development Agreement with CWVTP.

## **CONSULTATION PROCESS | HĀTEPE MATAPAKI:**

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### **> SIGNIFICANCE AND ENGAGEMENT | TE WHAKAMAHI I KĀ WHAKAARO HIRAKA**

- 65 This matter is of medium significance, as determined by reference to the Council's Significance and Engagement Policy because of the consistency with policy and strategy, and is within QLDC's capacity and capabilities. It will have significant benefit to the Cardrona Village community.
- 66 The persons who are affected by or interested in this matter are Cardrona Village, CWVTP, MCS, third-party private scheme operators (CWSL, Cardrona Ltd (Benbrae Development), Miners Rise Water Company, Pure H2O Group Ltd), businesses, and landowners, residences and ratepayers.
- 67 The Council has consulted with the Cardrona Residents and Ratepayers Society and subsequently with the wider community providing project overview and estimated costs to connect with rating charges. At the time of the meeting, the feedback was largely supportive of environmental initiatives, unaware of current public health risks, concerns about affordability, and consultation process time frames.
- 68 There is a mixed acknowledgement with skewed recognition of the perceptible differences between existing schemes which are perceived as affordable but are actually high risk and non-compliant, and the new scheme. The new scheme is perceived as more costly than the status quo, but is able to be designed for safe, secure, offering compliant drinking water, and with economies of scale to be the most affordable way to deliver the required quality of water. This is being approached with reference to the Ministry of Health's publicly accessible Annual Drinking Water Reports and involving the Southern District Health Board Drinking Water Assessor to support the public health messaging in this initiative. QLDC has lodged an Official Information Request to obtain up to date information in regard to the status of current private schemes for both unpublished and published schemes in the Annual Drinking Water Report.
- 69 The Council has consulted with the wider community via delivery of a flyer complete with project summary, scheme plan and proposed scheme boundary to summarise the proposal and solicit feedback via Let's Talk. Council received a letter on 16 October 2020 prepared by the legal representative that acts for both CWSL and Cardrona Ltd, the



existing small scheme operators, under the instruction from the Cardrona Residents and Ratepayers Society advising of concerns in regard to short time frames for consultation, lacking proof of need/benefit, and hence a cost-based opposition to a new drinking water scheme. This letter is included as an attachment.

- 70 Follow up questions and answers have been published on QLDC webpage and there has been a follow up community meeting at the Cardrona Hall. The FAQs are available on QLDC's [website](#).
- 71 The timeline for consultation has been extended in accordance with the community desires and the Council agenda item deferred from November to December 2020.
- 72 The feedback from the community has mirrored the initial concerns of the Cardrona Residents and Ratepayers Society.
- 73 Workshops have been held to present the issues and the proposal to the full Council and the Wānaka Community Board.
- 74 CWSL, Cardrona Ltd (Benbrae Developments), Miners Rise Water Company, Pure H2O Group Ltd are being consulted as key stakeholders for participation and involvement in vesting and acquisition of water-take permits and re-useable infrastructure assets that can be integrated into a concentrated long-term solution that caters for the current and ultimate demand of the scheme.
- 75 The Distillery and Cardrona Alpine Resort have also been approached to discuss joining on the basis of a global catchment-wide manage scheme. These commercial interests have significant business risks attributable to foodborne illness or sickness attributable to drinking water supply within their establishment, however they are not connected to a private scheme managed by third-parties and hence may be slow to negotiate further with. Despite the unlikely early adoption, QLDC will continue in pursuit of the best result for Cardrona Village environmental outcomes.
- 76 The Cardrona Hotel as a hallmark business operator with a brand reputation directly attributable to the consequences of foodborne illness or sickness attributable to drinking water within their establishment, and dually as a cornerstone hub for local communication in the village has been consulted as a potential early adopter and change-opportunity influencer.

## **RISK AND MITIGATIONS | NGĀ RARU TŪPONO ME NGĀ WHAKAMAURUTANGA**

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- 77 This matter relates to the Regulatory/Legal/Compliance risk category. It is associated with RISK00012 Core infrastructure is Insufficient- Poor infrastructure planning within the QLDC Risk Register. This risk has been assessed as having a high inherent risk rating.
- 78 The approval of the recommended option will support the Council by allowing the risk to be avoided. This shall be achieved by planning for sufficient infrastructure to meet the demand of the Cardrona Village.

## FINANCIAL IMPLICATIONS | NGĀ RITENGA Ā-PŪTEA

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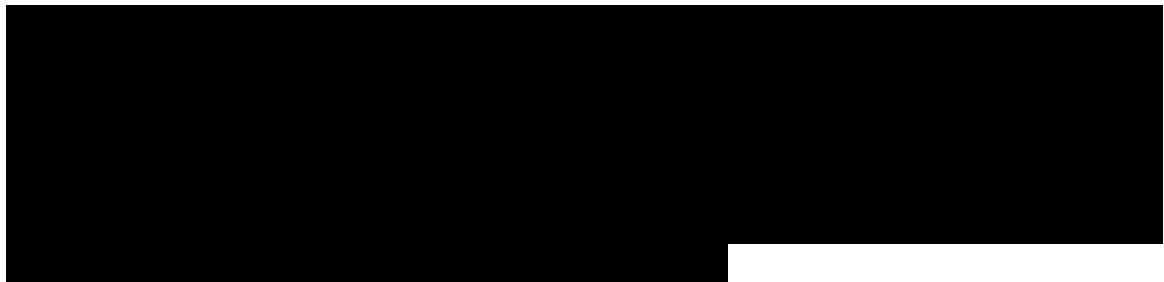
79 A 2017 business case refresh considered the informed costs of upgrade integrations and third-party scheme acquisitions in the earlier 2015 business cases which fed new funding requirements into the LTP18-28 of \$1.136 M in addition to unspent 2016 carry forwards. The business case also advised as a caveat that partnering for success with Mount Cardrona Station is an alternative supported option to the preferred option should there be any opportunities to do so. This put in motion the negotiations for water and waste water servicing with MCS. All unspent funding was carried forward to Financial Year 18-19.

80 Subsequently, \$368,871 was carried forward from Financial Year 18-19 to Financial Year 19-20 at the same time discussions started with Mount Cardrona Station on Wastewater anticipating that the funding would be needed for a water supply scheme to proceed alongside development of an outline plan to deliver waste water servicing. Shortly after and as negotiations with MCS continued through 2019 and became increasingly complex, MCS elected to proceed with a focus on wastewater servicing only as the critical path thereby deferring drinking water servicing arrangements - notwithstanding QLDC's preference to proceed with both in tandem. All budgets were carried forward from Financial Year 19-20 to Financial Year 20-21.

81 Through the AP20-21 Annual Plan Process \$487k and \$499k in Years 7 and 8 (24/25 and 25/26 of LTP18-28) were brought forward to align with the wastewater programme in anticipation that the drinking water treatment funding would be needed for either and all scenarios involving new schemes and acquisitions.

82 Current Annual Plan Budget available in 2020 is now \$1,272,954 which has been maintained as a placeholder on the basis and understanding that further negotiations and design effort with MCS would inform an updated costs of the scheme to feed into LTP21-31 and AP-21/22.

83



84



85



[REDACTED]

[REDACTED]

87 The project and proposed Development Agreement costs and cash flow details can be summarised as follows:

	Latest estimate	Comment
1. [REDACTED]	[REDACTED]	[REDACTED]
2. [REDACTED]	[REDACTED]	[REDACTED]
3. [REDACTED]	[REDACTED]	[REDACTED]
4. [REDACTED]	[REDACTED]	[REDACTED]
5. [REDACTED]	[REDACTED]	[REDACTED]
6. [REDACTED]	[REDACTED]	[REDACTED]
7. [REDACTED]	[REDACTED]	[REDACTED]
8. [REDACTED]	[REDACTED]	[REDACTED]
9. <b>Estimated DC</b>	\$7.5K to \$8.5K per DE	This is the net figure paid by CV developers and excludes the \$2k per DE from the small scheme funding (20%).
10. <b>Estimated rates</b>	\$600 – \$750 per connection	Still To be determined through subsequent analysis but charged on a target rate and volumetric basis.



- 91 These costs should also be considered in comparison to the (Central Government reports by BECA 2018, Table 3-10) assessment of potential costs that existing users connected to existing non-compliant private schemes could face if they remain on existing services to be in the order of \$4,500 (capital) per person and \$260 per annum per person for a non-council owned scheme in Otago – like that in Cardrona. At three people per household the costs are comparable to the QLDC proposed public water scheme.
- 92 It is impossible for any of the parties to provide a single ultimate solution that is safe, secure and compliant with DWSNZ should they go alone, and it is unlikely that any of them can provide a more affordable, suitable option without the economies of scale – while meeting the DWSNZ, and ORC consent criteria to ensure reliable, affordable, safe and secure drinking water for generations to come.
- 93 The operational charges estimate rates in the range of \$600 - \$750 +GST per household (on a volumetric targeted rate- metered basis) will be sufficient and affordable with loan funding of some of the operational costs in earlier (first ten) years to ensure long-term affordability while the scheme grows.

#### **COUNCIL EFFECTS AND VIEWS | NGĀ WHAKAAWEAWE ME NGĀ TIROHANGA A TE KAUNIHERA**

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- 94 The following Council policies, strategies and bylaws were considered:
- Cardrona 2020 (2003) - To provide for the cost-effective reticulation of water and sewerage as the population increases and this becomes more economically viable.
  - Water and Sewerage Schemes – Small Communities (2004) - Sewerage and water need to be funded by the community that benefit.
  - Growth Management Strategy (2007) - Infrastructure is provided in a way that supports high quality development located in the right places while adhering to the principles of sustainable development and ensuring that the environmental qualities of the district are protected.
  - Policy on Development Contributions & Financial Contributions
  - Infrastructure Asset Management Strategy
  - Water, Volume 1

95 The recommended option is consistent with the principles set out in the named policy/policies.

96 This matter is included in the Ten Year Plan/Annual Plan

#### **LEGAL CONSIDERATIONS AND STATUTORY RESPONSIBILITIES | KA TURE WHAIWHAKAARO, ME KĀ TAKOHAKA WAETURE**

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97 Negotiations on the Development Agreement and ancillary documents have not yet commenced, but would be carried out in accordance with instructions from relevant QLDC teams.

98 The documents will be negotiated so as to mitigate QLDC’s legal and procedural risks.

99 Key statutory responsibilities for QLDC in the proposed arrangement include those set out in the Local Government Act 2002, Resource Management Act 1991, and under applicable drinking water legislation (existing and proposed).

## **LOCAL GOVERNMENT ACT 2002 PURPOSE PROVISIONS | TE WHAKATURETURE 2002 O TE KĀWANATAKA Ā-KĀIKA**

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100 The recommended option:

- Will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses by providing a feasible infrastructure solution for water services with economies of scale in the Cardrona Valley
- Can be implemented under the Ten Year Plan and Annual Plan; with an adjustment to the funding level required.
- Is consistent with the Council's plans and policies; and
- Would not alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or transfer the ownership or control of a strategic asset to or from the Council.
- Will stimulate widespread economic benefit from initiating shovel-ready projects during a global recession with regional impact on tourism.

## **ATTACHMENTS | NGĀ TĀPIRIHANGA**

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A	Mt Cardrona Station: Proposed Water Scheme - Valley Overview
B	Mt Cardrona Station Proposed Water Scheme - Valley Overview With Existing Systems
C	Consultation Flyer Cardrona Drinking Water Supply Scheme
D	Consultation Feedback: Letter to Council on behalf of Cardrona Residents and Ratepayers Society, 16 October 2020
E	Southern District Health October 2012 letter to QLDC - D65151 Outbreak of gastroenteritis at Cardrona
F	Excerpt from Ministry of Health Annual Drinking Water report 2018–2019 Cardrona Specific Information on Page 84. [source: <a href="https://www.health.govt.nz/system/files/documents/publications/annual-report-drinking-water-quality-2018-2019-25june2020.pdf">https://www.health.govt.nz/system/files/documents/publications/annual-report-drinking-water-quality-2018-2019-25june2020.pdf</a> ]
G	Excerpt from Ministry of Health Annual Drinking Water report 2017–2018 Cardrona Specific Information in the Appendix 1 on Page 59 [source: <a href="https://www.health.govt.nz/system/files/documents/publications/drinking-water-annual-report-appendix-1-revised-aug2019.pdf">https://www.health.govt.nz/system/files/documents/publications/drinking-water-annual-report-appendix-1-revised-aug2019.pdf</a> ]
H	Excerpt from “ <a href="#">Cost Estimates for Upgrading Water Treatment Plants to Meet Potential Changes to the New Zealand Drinking Water Standards – 2018</a> ,” a report procured by the Central Government. Table 3-10 demonstrates the estimate of costs to non-council owned schemes in the Otago region.

[source: [https://www.dia.govt.nz/diawebsite.nsf/Files/Three-Waters-Review-Cabinet-papers-April-2018/\\$file/Beca-report-Cost-Estimates-for-Upgrading-Water-Treatment-Plants.pdf](https://www.dia.govt.nz/diawebsite.nsf/Files/Three-Waters-Review-Cabinet-papers-April-2018/$file/Beca-report-Cost-Estimates-for-Upgrading-Water-Treatment-Plants.pdf)]