



## **Cardrona Valley Water Supply Investment**

### **STATEMENT OF PROPOSAL 17 June 2022**

## INTRODUCTION

1. Queenstown Lakes District Council (QLDC) is seeking public submissions on a proposal to:
  - a. increase the current 2021-2031 Ten Year Plan<sup>1</sup> capital budget, and
  - b. increase associated debt recovery in the current 2021 Development Contribution Policy<sup>2</sup> (DCP).

The purpose of these proposed adjustments is to invest in a community drinking water supply scheme for Cardrona Valley, including the Cardrona Village (the village) and the Mount Cardrona Station (MCS) development.

2. This is a Statement of Proposal prepared in accordance with section 83 of the Local Government Act 2002 (LGA).

## BACKGROUND

3. QLDC has a responsibility to ensure its residents and visitors have access to safe and clean drinking water.
4. Traditionally the Cardrona Village, like other small townships in the district has been serviced by a combination of small, private schemes, and rainwater for their water supply, with private onsite septic tanks or similar for servicing wastewater needs. Following various scoping reports and feasibility studies, a 2016 business case (refreshed in 2017) identified a clear need for QLDC to invest in a community drinking water supply and wastewater servicing solution for Cardrona Valley.
5. QLDC has since successfully worked with a private developer (MCS) to deliver a new wastewater scheme (including a wastewater treatment plant and inbound conveyance network) to service the Cardrona Village, the MCS special zone and the Cardrona Alpine Resort (CARL). The wastewater scheme was formally vested in QLDC in December 2021 and is now in operation.
6. The investors of Mount Cardrona Station will be proceeding with a drinking water supply scheme for its development, potentially resulting in another private scheme in the area.
7. MCS has offered the opportunity to work collaboratively with QLDC to build this scheme to a specification that will ensure compliant drinking water servicing for the whole Cardrona Village, to vest in Council as a community drinking water supply scheme. See Appendix 1 for the Scheme plan proposal.
8. In December 2020, Council resolved to delegate authority to its Chief Executive to enter into a Development Agreement to participate with MCS in the procurement of a new community drinking water supply scheme with a connection to the Cardrona Village.
9. The 2021-2031 Ten Year Plan includes an approved capital budget of nearly \$10M to be recovered in accordance with the 2021 Development Contribution Policy for this new Cardrona community drinking water supply scheme. The majority of

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<sup>1</sup> <https://www.qldc.govt.nz/your-council/council-documents/ten-year-plan-ltp>

<sup>2</sup> [https://www.qldc.govt.nz/media/cr1b3ydh/b-qldc\\_ten-year-plan\\_-vol-2-dc-policy-1.pdf](https://www.qldc.govt.nz/media/cr1b3ydh/b-qldc_ten-year-plan_-vol-2-dc-policy-1.pdf)

the funding is spread over the 2023-2025 years and recovered over 30 years of growth via development contributions and a 30-year targeted water supply rate.

## **DRINKING WATER IN THE CARDRONA VALLEY**

10. Cardrona Village is currently serviced by five small private water supply schemes each with permitted water take consents. These private schemes, whether alone or collectively, cannot provide sufficient capacity to supply the long-term demand in the village. Combining the consents of the existing schemes could service around one third of the long-term demand in the village, so an additional supply will be required to enable the village to fully develop to levels anticipated in the Queenstown Lakes Spatial Plan<sup>3</sup>.
11. Cardrona faces unique challenges for the availability of fresh water supply for allocation as drinking water. Due to the alpine high-country environment and limited supply, in tension with existing allocations in the valley, the Otago Regional Council applies a shrinking cap. This prohibits the permission of any new potable water consent takes. As a result, existing drinking-water-supply consents must be managed to maximise efficient use and supply of drinking water to sustain and minimise the environmental impact of growth.
12. Of the existing drinking water allocations in the Cardrona catchment, MCS holds the largest existing permitted water-take by volume, seconded by the existing permitted village schemes. The proposal includes provision for these private schemes to be integrated into the community drinking water supply scheme in the future if they wish, in line with the QLDC Three Waters Vesting and Acquisition of Private Schemes Policy 2021<sup>4</sup>.
13. Work undertaken since the proposed water-supply scheme was included in the 2021-2031 Ten Year Plan and Development Contribution Policy 2021 has revealed that the scheme will be more expensive to deliver than was initially budgeted. Because the increase is considered significant under the QLDC Significance and Engagement Policy 2021<sup>5</sup>, QLDC has decided to consult the public through this statement of proposal.

## **THE PROPOSAL**

14. The proposal is to increase the budget included in the 2021-2031 Ten Year Plan and associated debt recovery in the current Development Contribution Policy 2021, to invest in a QLDC owned and operated community drinking water supply scheme for Cardrona Valley (Option 1). The proposal is to increase the capital budgets and development contributions used to fund the capital costs within the 2021-2031 Ten Year Plan and Development Contribution Policy 2021, as per Appendix 2 and 3.
15. QLDC's investment from 2021-2022 to provide the water scheme has been revised up from \$8.1M (with a further \$1.5M staged outside the ten-year window) to an estimate of \$17.2M. As with the joint funding model used to deliver the wastewater scheme, MCS will make a bulk payment up front to fund the initial

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<sup>3</sup> <https://www.qldc.govt.nz/your-council/council-documents/queenstown-lakes-spatial-plan>

<sup>4</sup> <https://www.qldc.govt.nz/media/hv4bxvy3/acquisition-and-vesting-of-private-3-waters-scheme-policy-draft-rev-1-16-12-2021.pdf>

<sup>5</sup> [https://www.qldc.govt.nz/media/fvmkuxm0/qldc\\_significance-and-engagement-policy\\_feb21-final.pdf](https://www.qldc.govt.nz/media/fvmkuxm0/qldc_significance-and-engagement-policy_feb21-final.pdf)

and staged capital costs. A comparison with the 2021-2031 Ten Year Plan capital budgets and the revised inflated costings is summarised below (\$000s).

**Table 1: Summary of revised capital costings**

Financial Year	Capital Cost in TYP 21/31 (\$000)	Revised Capital Cost (\$000)
2021/22	\$1,400	\$400
2022/23	\$6,676	\$200
2023/24	\$0	\$10,906
2024/25	\$0	\$5,092
2025/26	\$0	\$0
2026/27	\$0	\$584
2027/28	\$0	\$0
2028/29	\$0	\$0
2029/30	\$0	\$0
2030/31	\$0	\$0
<b>TOTAL</b>	<b>\$8,076</b>	<b>\$17,182</b>
10 Year +	\$1,500	\$0
MCS bulk payment	\$1,500	\$6,000
<b>Total</b>	<b>\$11,076</b>	<b>\$23,182</b>

16. The proposal also requires a change to the Development Contributions Policy 2021 to reflect the required capital cost estimates and required development contributions. These changes are summarised below and relate to page 215 and 236 of the Development Contributions Policy 2021 in the 2021-2031 Ten Year Plan.

**Table 2: Summary of proposed increases to DCP 2021**

Contributing area	Water supply development contribution		Total cash contribution	
	DCP 2021	Proposed increased in DCP 2021	DCP 2021	Proposed increased in DCP 2021
Cardrona Village	\$8,490	\$16,490	\$32,455	\$40,455
MCS zone	\$7,920	\$20,070	\$28,455	\$40,605

See Appendix 2 and 3 for details on proposed increase to figures in the Ten-Year Plan 2021.

**Table 3: Summary of revised capital costings**

PRIVATE DEVELOPER AGREEMENT SCHEMES – WATER SUPPLY CARDRONA (uninflated \$s)		
Component	Existing Capital Costs in DCP 2021	Proposed capital costs in DCP 2021
WS Headworks (Intake, PS, Rising Main, Storage, Treatment)	\$8,611,183	\$12,455,879
Staged - Additional membranes and storage	\$1,278,987	\$9,572,596
Interest	\$4,099,491	\$11,040,288

<b>WS Headworks Total</b>	<b>\$13,989,661</b>	<b>\$33,068,763</b>
Pipeline from MCS (WTP) to Cardrona Village	\$1,430,000	\$1,950,000
Interest	\$1,111,416	\$1,997,940
<b>Pipeline Total</b>	<b>\$2,541,416</b>	<b>\$3,947,940</b>

*See Appendix 2 and 3 for details on proposed increase to figures in the Ten-Year Plan 2021.*

## CONTEXT FOR INCREASING COSTS

17. Over the last 18 months rapid cost escalations in construction markets have made sector wide impacts, contributing to the proposed Cardrona drinking water supply scheme project costs increasing beyond the budgets that formed part of the 2021-2031 Ten Year Plan. This includes escalations across the board as a result of global supply chain disruptions and domestic skilled labour / professional resource shortages as a flow on effect of the COVID-19 pandemic.
18. Regulatory changes are also affecting project cost estimates. Taumata Arowai–The Water Services Regulator Act came into effect on 1 March 2021, establishing Taumata Arowai as Aotearoa New Zealand’s dedicated regulator of the Three Waters.
19. Taumata Arowai has introduced new draft drinking water rules. While existing drinking water standards will apply until they are replaced by the new standards (expected around July 2022), the design of new drinking water infrastructure must be future-proofed to ensure it meets the requirements that are being signalled.
20. Further, a national-level awareness of potential water reforms have added complexity to the process. Currently it is unknown how Three Waters assets and service delivery will transition to a resulting future model. However design and delivery must be future-proofed as much as is reasonably and practicably possible to ensure a new community drinking water supply scheme would be able to meet both the current requirements of QLDC and any reasonably foreseeable operational or legislative requirements of possible future entities.
21. As the design / layout of the proposed water supply scheme design has evolved, there is now a clearer understanding and more accurate estimate of the project cost to provide a suitable community drinking water supply scheme for the Cardrona Valley.
22. The timing of this opportunity is important. The project is shovel ready and MCS is consented to proceed with a water scheme for its development regardless of whether QLDC participates or not (as was the case with the successful delivery of the Cardrona wastewater servicing project).

## AFFORDABILITY AND VALUE FOR MONEY

### Funding of Capital Costs

23. Nationally there are increasing costs to deliver safe and clean drinking water to communities. As a comparison for this project:

- a. Tauranga City Council has recently doubled its water supply development contributions to between \$15,000 to \$20,000 per lot (Dwelling Equivalent).
  - b. Western Bay of Plenty District Council has water supply financial contributions of over \$15,000 per lot (Dwelling Equivalent).
24. Cardrona is no exception to the impacts of sector wide escalation in costs to deliver community drinking water supply schemes in Aotearoa New Zealand. Cardrona is a unique location in a high alpine environment, limited accessibility, and challenging climatic conditions. For these reasons the project has an elevated risk of cost increases compared to other similar scale small schemes, where those unique factors do not challenge the design and constructability in the same way.
25. To support affordability in the Cardrona Village, access to the Small Scheme Subsidy first introduced in the 2018-2028 Ten-Year Plan allows for the village to benefit from a 20% reduction on development contributions. This same subsidy was applied for wastewater contributions in the village. MCS does not have access to this subsidy for its development.
26. Further to this, a differential development contribution is being proposed to further mitigate the increased capital costs to the Cardrona Village. MCS will be subject to a higher development contribution, as shown below.

**Table 4: Summary of Development Contributions**

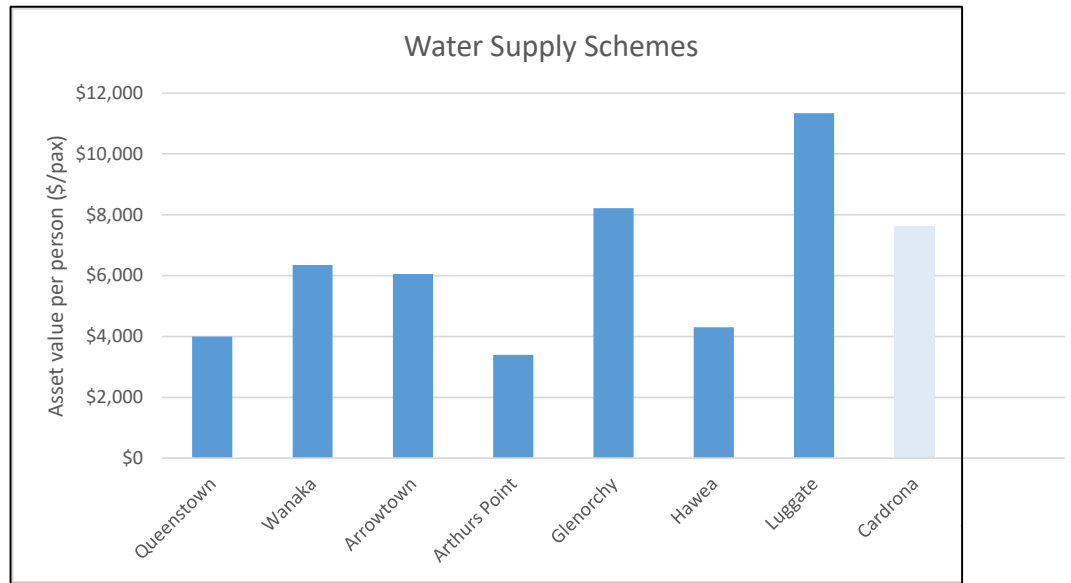
	Proposed Cardrona Village DC	Proposed MCS Special Zone DC
<b>2021 DCP</b>	<b>\$8,490<sup>1</sup></b>	<b>\$7,920</b>
<b>Proposed DCP</b>		
Headworks	\$19,190	\$20,070
MCS differential funding	-\$2,580	\$0
<b>Headworks contribution</b>	<b>\$16,610</b>	<b>\$20,070</b>
CV pipeline	\$4,000	\$0
<b>Contribution pre small scheme subsidy</b>	<b>\$20,610</b>	<b>\$20,070</b>
Small scheme funding @20%	-\$4,120	\$0
<b>Proposed development contribution</b>	<b>\$16,490<sup>1</sup></b>	<b>\$20,070</b>
<b>Annual general WS rate (unchanged)</b>	<b>\$800</b>	<b>\$800</b>

1. See clauses 29, 30, 31 below on the Targeted Capital Water Supply Rate option.

27. Early connections (and capital recovery) have long term benefits to overall scheme affordability by reducing debt early and the associated interest costs. To assist with mitigating project cost escalations and overall affordability, MCS has offered to initially pay a higher development contribution with an aim to encourage and incentivise earlier uptake of connections (for capital recovery) within the village. MCS recognises the value of a community drinking water supply scheme that is designed to meet the new legislative requirements and operated by QLDC.
28. MCS would pay the higher development contribution for an initial period of QLDC ownership of the scheme (still to be confirmed as part of ongoing negotiations), after which time the funding would revert to a standard headworks contribution for all development in the Cardrona Village and MCS special zone.

29. As is standard practice for Council Services, Development Contributions for connections to the community drinking water supply scheme will be levied at the usual triggers in accordance with Council Development Contribution Policy 2021 (i.e., at service connection, building consent or at subdivision consent (224c)). Development contributions do not include the private costs to connect which are to be borne by the applicant, these may include council service application fees; professional fees (e.g., design, survey) or construction services (e.g., plumbing costs).
30. For properties within the existing township there is a limited time option to amortise the cost of the development contribution over 30 years at 4% interest (loan fund the upfront payment over long term period) using a Targeted Capital Water Supply Rate.
31. The Targeted Capital Water Supply Rate is estimated to be \$1,100 p.a (this compares to an estimate of \$490 p.a. under the original proposal). This option will be available to any properties in the village that sign up to the Targeted Capital Water Supply Rate within the first rating year of council ownership of the scheme (Estimated deadline 1 July 2024). This is also available to those properties who do not need an immediate connection. This Targeted Capital Water Supply Rate option does not receive the benefit of the MCS differential funding as this is available only for a limited period.
32. Aside from the short-term differential funding from MCS, the above capital cost funding approach is in accordance with Council's usual policies and practices. However, unique factors that apply to this proposal for a community drinking water supply scheme in Cardrona are set out below:
  - i. The Targeted Capital Water Supply Rate will not be levied to any properties that choose not connect to the community drinking water supply scheme. Any properties that do not opt for the Targeted Capital Water Supply Rate within the first rating year will be required to pay the applicable development contribution (as a lump sum payment) in full at the time of any future connection.
  - ii. Differential development contributions funded by MCS.
33. At a local level, the comparison with the cost of other QLDC water supply schemes are shown below. These figures include the current asset value and the proposed future non-renewal capital expenditure. While it costs more per person in small schemes due to challenges such as delivering water in a remote location, constructability in an alpine environment and limited economies of scale – these costs are being mitigated through access to the 20% small scheme subsidy and differential development contributions between the Cardrona Village and Mount Cardrona Special Zone.

**Figure 1: Indicative comparison of water supply asset value per person by scheme**



Funding of operating costs

34. As is standard practice for Council Services, the revenue from rates is used to fund the operating costs associated with providing the community drinking water supply services to Cardrona.
35. Rates include the following:
  - i. The Cardrona Water Supply Rate (est. \$800 p.a.) will be levied on serviced (connected) rating units and
  - ii. Availability Charges are levied at 50% of the full rate (est. \$400) and will be levied on serviceable rating units (located within 100m of Council services but not yet connected) except for those properties expressly excluded in paragraph 36 below.
36. The above operating cost funding approach is standard in accordance with Council’s usual policies and practices. However, unique factors that apply to this proposal for a community drinking water supply scheme in Cardrona are that availability charges will not be levied on:
  - i. Any serviceable rating unit (within 100m of but not connected to Council community drinking water supply service) that is currently connected to the existing private water schemes owned by Cardrona Water Supply Limited and Cardrona Limited (For the avoidance of doubt, such units will be required to pay relevant Development Contributions and ongoing rating charges from any point they elect to join the Council community drinking water supply scheme).
37. In 2020 when Council provided the Cardrona community with details of the proposed water scheme, some members of the community raised concerns and instituted legal proceedings about the proposal. Council took the feedback into account, the legal proceedings were resolved, and the current proposal reflects



the outcome. That includes not levying an availability charge for running costs on lots currently connected to a private water scheme. It also includes not levying development contributions on a lot to recover a share of the capital costs, until (as is also the case for rating and recovery of operating costs) the lot connects to the scheme.

## **REASONABLY PRACTICABLE OPTIONS AND ANALYSIS**

38. There are two reasonably practicable options:

1. Commit the additional funding required for QLDC to proceed with MCS to invest in a community water scheme for Cardrona Valley. This option requires increase to capital budgets in the 2021-2031 Ten-Year Plan and debt recovery in the Development Contribution Policy 2021 as proposed.
2. Do not commit the additional funding, and MCS will build a water scheme solely for its development. This option does not require increase to capital budgets in the 2021-2031 Ten-Year Plan and debt recovery in the Development Contribution Policy 2021 as proposed.

39. The options analysis is summarised below:

**Table 5: Options Analysis**

Consideration	1. Commit the additional funding required for QLDC to proceed with the partnership	2. Do not commit the additional funding, and MCS will build a water scheme solely for its development
1. Fully compliant and future proofed source water supply.	✓	×
2. High degree of certainty over compliance with the rising bar of regulatory framework and legislative requirements - designed to Council's specified requirements.	✓	×
3. The largest of the existing water permits are acquired by the QLDC.	✓	×
4. Acquisition of raw water buffer reservoir to help better manage environmental impacts and seasonal fluctuations of catchment water availability for more efficient use of seasonal water availability.	✓	×
5. Fixed price certainty with development agreement, shovel ready, and fast-tracked into delivery as part of MCS development.	✓	×
6. Delivers key lead infrastructure to enable Cardrona Village to develop in line with Spatial Plan assumptions regarding wastewater treatment plant funding (funded by growth).	✓	×
7. Differential development contribution mechanism to fund the capital costs for connection to the Cardrona Village to lower the initial development contribution for Cardrona Village users.	✓	×
8. Preserves options for Cardrona Village – does not compel connections or levy any availability charges.	✓	✓

40. **Option 1** is recommended because it will provide safe, clean and best value for money drinking water to Cardrona to enable growth and better manage the environmental impacts of water consumption in the catchment.

41. The recommended option leverages off the efficiencies of a development in motion. The risk of cost escalations is transferred to the developer and further risk of delay and cost escalation from planning avoided.

42. The recommended option is in alignment with the affordability needs of the village and preserves the options, allowing for choice to remain in Cardrona for as long as the private schemes are operating. Should private schemes exit the market, a community drinking water scheme ensures there is an acceptable option to meet the key levels of service and core infrastructure requirements.

43. Realistically, because of the shrinking cap on water take consents, there will not be any similar, reasonably practicable opportunities for the Council to supply drinking water in the Cardrona Valley. In saying that, it is as yet unknown what position any new entity (scheme operator and asset manager) may take to the

provision of water supply infrastructure or development of that infrastructure, or acquisition of private schemes.

44. QLDC encourages anyone with an interest in the proposal to make a submission.

## TIMETABLE FOR CONSULTATION

45. The following dates represent the timeline of the consultation programme:

**Table 6: Key dates for consultation programme**

Date	Task
Council meeting 2 June 2022	The Council resolves to undertake a special consultative procedure on the Cardrona Water Supply Investment
17 June 2022	QLDC publishes the Statement of Proposal and submissions open
Between 20-24 June 2022	Advertisements in the Otago Daily Times, Southland Times, The Mountain Scene and the Wānaka Sun
18 July 2022	Submissions close 5.00pm
25 July 2022	Submissions heard by a subcommittee of Councillors
Council meeting 11 August 2022	The Council considers the outcome of the consultation process and makes a decision on the proposal to invest

## INSPECTION OF DOCUMENTS AND OBTAINING COPIES

46. Copies of this Statement of Proposal may be inspected, and a copy obtained, at no cost, from:

- a) Either of the QLDC offices at 10 Gorge Road, Queenstown or 47 Ardmore Street, Wānaka;
- b) Any library within the Queenstown Lakes District; or
- c) QLDC's online engagement platform Let's Talk – <https://letstalk.qldc.govt.nz/>

## RIGHT TO MAKE A SUBMISSION AND BE HEARD

47. Any person or organisation has a right to be heard on this proposal and QLDC encourages everyone with an interest to do so. Submissions should be directed toward matters that are within the scope of the proposal.

48. The preferred way to make a submission is to complete the online form at <https://letstalk.qldc.govt.nz/>

Submitters may also:

- a) Post their submission to: Property Department, Queenstown Lakes District Council, Private Bag 50072, Queenstown 9348
- b) Email their submission to [letstalk@qldc.govt.nz](mailto:letstalk@qldc.govt.nz)

49. Submissions must be received by **Monday 18 July 2022 at 5.00 PM**. QLDC will then convene a hearing, at which any party who wishes to do so can present their submission in person. QLDC will give equal consideration to written and oral submissions.

50. QLDC will permit parties to make oral submissions (without prior written material) or to make a late submission, only where it considers that special circumstances apply.

51. Every submission made to QLDC will be acknowledged in accordance with the LGA 2002, will be copied and made available to the public. Every submission will be heard in a meeting that is open to the public.

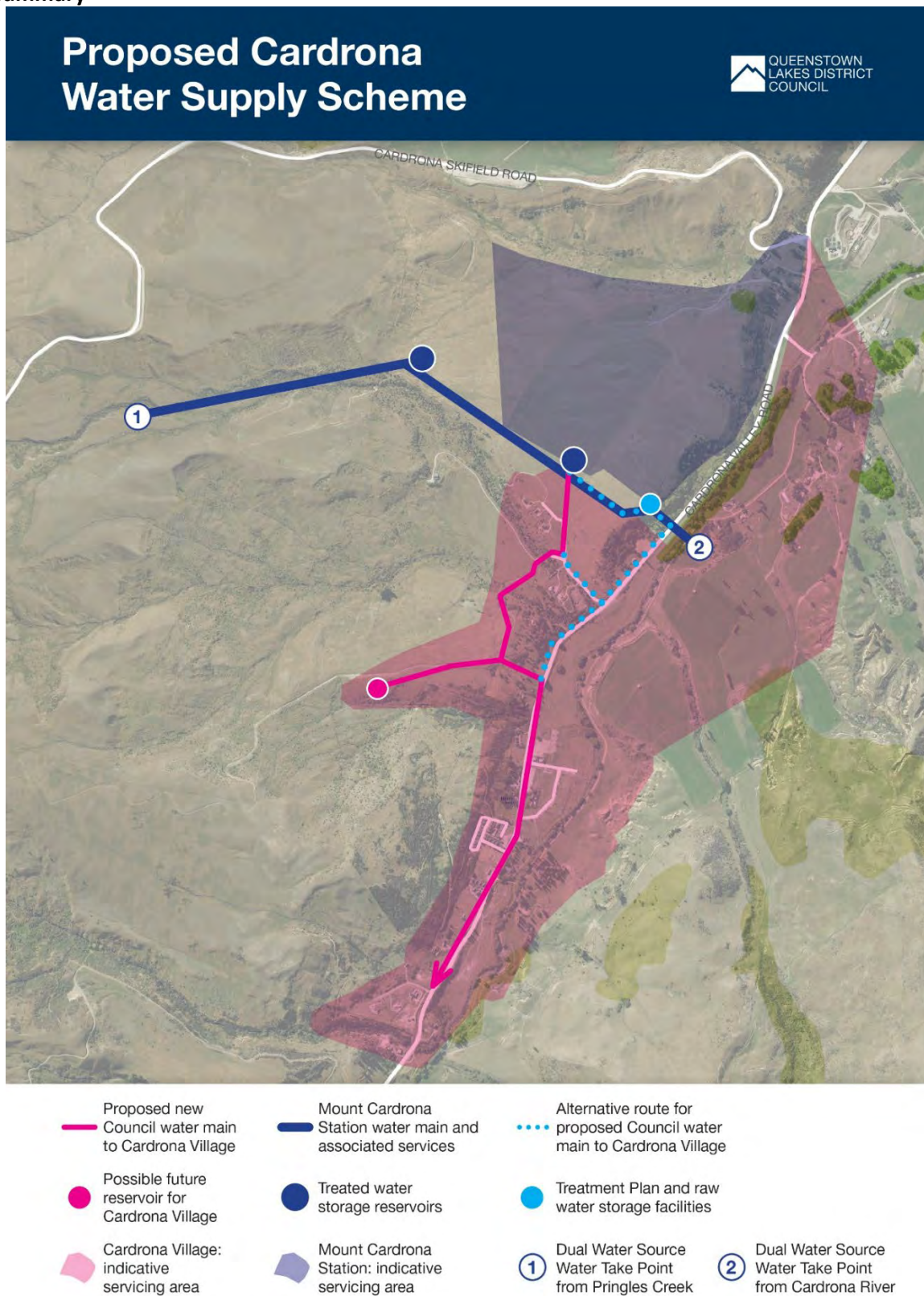
#### **MAKING AN EFFECTIVE SUBMISSION**

52. Written submissions can take any form (e.g. email or letter) but we recommend your submission be made on a standard submission form available from QLDC. An effective submission references the options of the proposal in Clause 38 you wish to submit on, states why the option is supported or not supported, and states what change to the option, if any, is sought. This may include:
  - i. The increase to figures in the Ten Year Plan 2021 – 2031, Development Contribution Policy 2021 for the proposed community drinking water supply scheme in the Cardrona area.
  - ii. The introduction of a targeted capital water supply rate for the proposed community drinking water supply scheme in Cardrona
53. Submissions on matters outside the scope of the proposal cannot be considered by the Hearings Panel.

Mike Theelen

CHIEF EXECUTIVE

**APPENDIX 1: Proposed water scheme plan and indicative servicing areas map and scheme summary**



**Figure 1: Cardrona Valley Scheme Plan and Indicative Servicing Areas**

Note the above is not a proposed change to the servicing rating scheme boundary per section 17.1 - *Water Supply & Wastewater* of the final contributing area maps in the Development Contribution Policy 2021 page 27 of 40. Figure 1 is an indicative scheme area only and will be confirmed following the consultation and advanced design of the proposed Cardrona community drinking water supply scheme.

**Scheme Summary:**

The proposed Cardrona Valley community drinking water supply scheme consists of new dual abstraction sources in the Cardrona River and Pringles Creek, pumping stations, raw water storage pond to buffer seasonal fluctuations, and water treatment plant with membrane filtration and chlorination.

Treated water reservoirs will store water with emergency fire-fighting capacity. The scheme will be staged such that the plant is constructed to be scalable to demand and as well to mitigate construction delay risks.

Initially the water treatment can be serviced from a mobile containerised system initially until sufficient demand triggers further stages of plant to be built, beyond which further expansions for membranes etc will be contained within the permanent water treatment plant. The scheme will embed demand management flow meters from the outset for improved demand management and overall scheme efficiency. The scheme is also being designed and future proofed such that there are options (all parties willing) for integration of the existing Cardrona Village private drinking water supply schemes to join into a single community drinking water scheme in the future.

The proposed community drinking water supply scheme consists of two pre-existing Otago Regional Council water permits currently owned by Mount Cardrona Station that will vest into Council's ownership. RM21.628.03 (previously 2009.191.v2) Potable water permit, and RM21.628.04 (previously 2009.435.v1) irrigation permit. Both permits will vest into Council. The drinking water permits have been varied by Mount Cardrona Station to allow for Council as the scheme operator and owner to extend the allowable servicing catchment area to allow to service the township and to also update and extend further scheme boundaries in the future to accommodate growth.

The water treatment plant, raw water reservoir, rising and falling mains, and treated water reservoirs and associated ancillary infrastructure are all proposed to be constructed on Mount Cardrona Station's land, with associated land use rights including easements, resource consents, building consents, and will all vest into Council ownership.

The proposed Mount Cardrona Station subdivision reticulation network will vest into Council ownership, and Council will be responsible for the planning and delivery of the inbound pipeline to the Cardrona Village or other servicing areas.

**APPENDIX 2: Proposed increase to capital budgets in the QLDC Ten Year Plan 2021 – 2031**

**Water Supply capital works**

SUM OF CAPITAL WORKS (000's)	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2021-31
Water Supply capital works	48,117	43,996	57,851	28,709	16,404	13,358	6,506	17,120	13,351	45,758	291,171
<b>Arrowtown</b>	<b>340</b>	<b>298</b>	<b>1,744</b>	<b>2,084</b>	<b>2,931</b>	<b>3,618</b>	<b>247</b>	<b>257</b>	<b>1,434</b>	<b>391</b>	<b>13,324</b>
Arrowtown Network Improvement (WS)	-	-	-	437	-	577	-	-	1,273	-	2,286
Arrowtown Reservoir Stabilisation Investigation (WS)	100	-	-	-	-	-	-	-	-	-	100
Arrowtown Water Storage (WS)	-	-	64	1,310	2,694	2,770	-	-	-	-	6,837
Masterplanning - Arrowtown (WS)	44	9	10	7	12	10	40	9	14	12	167
Telemetry - Arrowtown (WS)	5	66	-	-	-	-	-	-	-	-	71
Water Supply - Renewals - Arrowtown (WS)	137	140	106	204	218	257	202	176	200	373	2,014
Demand Management - Arrowtown (WS)	19	78	1,570	-	-	-	-	-	-	-	1,666
Hydraulic Model & System Performance - Arrowtown (WS)	5	4	4	68	7	5	5	71	6	6	182
<b>Arthurs Point</b>	<b>125</b>	<b>80</b>	<b>46</b>	<b>462</b>	<b>100</b>	<b>133</b>	<b>78</b>	<b>73</b>	<b>370</b>	<b>634</b>	<b>2,220</b>
Conveyance Capacity over Shot River (WS)	-	-	-	-	-	-	-	17	267	787	1,072
Masterplanning - Arthurs Pt (WS)	40	5	16	5	6	6	30	6	6	7	127
Telemetry - Arthurs Pt (WS)	2	23	-	-	-	-	-	-	-	-	24
Water Supply - Renewals - Arthurs Point (WS)	22	23	27	33	29	44	45	46	33	36	339
Demand Management - Arthurs Point (WS)	7	26	-	420	-	-	-	-	-	-	453
Hydraulic Model & System Performance - Arthurs Pt (WS)	54	3	3	3	65	3	3	3	64	4	205
<b>Cardrona</b>	<b>1,400</b>	<b>6,676</b>	<b>8</b>	<b>8</b>	<b>98</b>	<b>49</b>	<b>9</b>	<b>8</b>	<b>67</b>	<b>67</b>	<b>8,380</b>
<b>Cardrona Water Supply Scheme (WS)</b>	<b>1,400</b>	<b>6,676</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8,076</b>
Masterplanning - Cardrona (WS)	40	5	5	5	6	46	6	6	6	52	179
Hydraulic Model & System Performance - Cardrona (WS)	-	3	3	3	52	3	3	3	51	4	125

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The above table and figures in the QLDC TEN YEAR PLAN 2021–2031 VOLUME ONE Page 95 Water Supply Capital Works Table: Cardrona are to be increased as per the below:

	22	23	24	25	26	27	28	29	30	31	TOTAL
<b>Cardrona Water Supply Scheme</b>	400	200	10,906	5,092	0	584	0	0	0	0	17,182



**APPENDIX 3: Proposed Increase to Cardrona Development Contribution in the Development Contribution Policy 2021 – page 215 and page 236 Volume 2; 2021/31 Ten Year Plan**

SCHEDULE OF DEVELOPMENT CONTRIBUTIONS PER DWELLING EQUIVALENT REQUIRED BY CONTRIBUTING AREA (EXCLUDING GST)										
Contributing area*	Water Supply	Wastewater	Stormwater	Reserve Improvements	Premier Sportsground - Reserve land contribution	Community Infrastructure	Transportation	Transportation - EAR <sup>6</sup>	Total Cash Contribution	Local/Community Reserve Land
Queenstown	\$4,454	\$6,317	\$3,670	\$1,233	\$500	\$3,711	\$3,389	\$763	\$24,037	17.5m <sup>2</sup> /DE in applicable areas <sup>6</sup>
Frankton Flats	\$4,454	\$6,317	\$4,883	\$1,233	\$500	\$3,711	\$3,389	\$763	\$25,250	
Arrowtown	\$3,941	\$3,349	\$446	\$1,233	\$500	\$3,711	\$3,389		\$16,569	
Glenorchy	\$10,688	^	\$434	\$1,233	\$500	\$3,711	\$3,389		\$19,955	
Lake Hayes	\$4,454	\$3,984		\$1,233	\$500	\$3,711	\$3,389		\$17,271	
Shotover Country	\$4,454	\$1,938		\$1,233	\$500	\$3,711	\$3,389		\$15,225	
Arthurs Point	\$1,867	\$6,317		\$1,233	\$500	\$3,711	\$3,389		\$17,017	
Kingston Township # %	\$9,516 #	^	^	\$1,233	\$500	\$3,711	\$3,389		\$18,349	
Kingston - KVL zone *%	\$1,977	\$2,719	\$1,388	\$1,233	\$500	\$3,711	\$3,389		\$14,917	
Ladies Mile	\$4,454	\$2,384	^	\$1,233	\$500	\$3,711	\$3,389		\$15,671	
Southern Corridor	\$4,454	\$6,317		\$1,233	\$500	\$3,711	\$3,389		\$19,604	
Wānaka	\$7,034	\$5,821	\$2,119	\$2,434		\$3,808	\$1,873		\$23,089	
Hāwea	\$5,543	\$16,942	\$403	\$2,434		\$3,808	\$1,873		\$31,003	
Albert Town	\$7,034	\$5,821	\$350	\$2,434		\$3,808	\$1,873		\$21,320	
Luggate	\$6,491	\$5,821	\$295	\$2,434		\$3,808	\$1,873		\$20,722	
Cardrona	\$8,490 #	\$15,850 #		\$2,434		\$3,808	\$1,873		\$32,455	
Cardrona – MCS zone *	\$7,920	\$12,420		\$2,434		\$3,808	\$1,873		\$28,455	
Other Wakatipu				\$1,233	\$500	\$3,711	\$3,389		\$8,833	
Other Wānaka				\$2,434		\$3,808	\$1,873		\$8,115	

The above table and figures in the 2021-2031 TEN YEAR PLAN VOLUME TWO Development Contribution Policy 2021 - Page 215 SCHEDULE OF DEVELOPMENT CONTRIBUTIONS PER DWELLING EQUIVALENT REQUIRED BY CONTRIBUTING AREA (EXCLUDING GST) shall be increased as per the below.

Contributing area	Water supply development contribution		Total cash contribution	
	DCP 2021	Proposed increase in DCP 2021	DCP 2021	Proposed increase in DCP 2021
Cardrona Village	\$8,490	\$16,490	\$32,455	\$40,455
MCS zone	\$7,920	\$20,070	\$28,455	\$40,605

Private Developer Agreement Schemes – Water Supply

**Cardrona**

Water Supply development contributions as per provisional private development agreement – 100% of costs to be funded through development contributions.

PRIVATE DEVELOPER AGREEMENT SCHEMES – WATER SUPPLY CARDRONA	
Component	Capital Costs
WS Headworks (Intake, PS, Rising Main, Storage, Treatment)	\$8,611,183
Additional membranes and storage	\$1,278,987
Interest	\$4,099,491
<b>WS Headworks Total</b>	<b>\$13,989,661</b>
Pipeline from MCS to Cardrona Village	\$1,430,000
Interest	\$1,111,416
<b>Pipeline Total</b>	<b>\$2,541,416</b>

**Kingston**

Water Supply development contributions are as per the private development agreement – 100% of costs to be funded through growth – with options to pay the development contribution as an upfront lump sum, or over time as a targeted rate.

PRIVATE DEVELOPER AGREEMENT SCHEMES – WATER SUPPLY KINGSTON	
Component	Capital Costs
Headworks	\$12,988,276
Conveyance	\$4,270,118
Interest	\$3,335,610
<b>Total</b>	<b>\$20,594,003</b>

The above table and figures in the QLDC TEN YEAR PLAN 2021–2031 VOLUME TWO Development Contribution Policy 2021 - Page 236 PRIVATE DEVELOPER AGREEMENT SCHEMES – WATER SUPPLY CARDRONA shall be increased as per below.

PRIVATE DEVELOPER AGREEMENT SCHEMES – WATER SUPPLY CARDRONA (inflated \$s)		
Component	Capital Costs in DCP 2021	Proposed increase to capital costs in DCP 2021
WS Headworks (Intake, PS, Rising Main, Storage, Treatment)	\$8,611,183	\$12,455,879
Staged - Additional membranes and storage	\$1,278,987	\$9,572,596
Interest	\$4,099,491	\$11,040,288
<b>WS Headworks Total</b>	<b>\$13,989,661</b>	<b>\$33,068,763</b>
Pipeline from MCS (WTP) to Cardrona Village	\$1,430,000	\$1,950,000
Interest	\$1,111,416	\$1,997,940
<b>Pipeline Total</b>	<b>\$2,541,416</b>	<b>\$3,947,940</b>