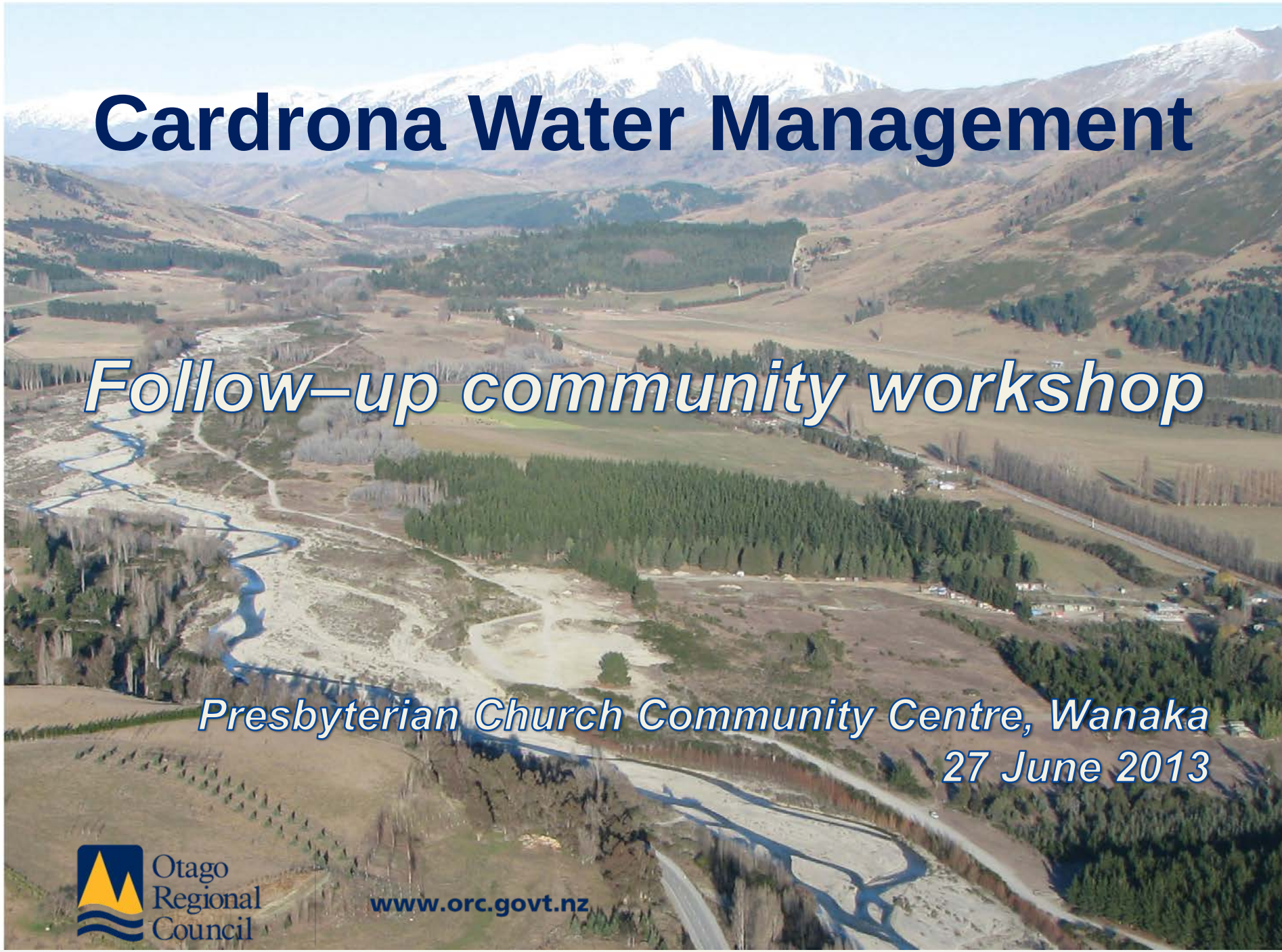

Cardrona Water Management

Follow–up community workshop

Presbyterian Church Community Centre, Wanaka
27 June 2013

Otago Regional Council

www.orc.govt.nz

Today

- Introduction
- Overview of surface water management options
- Social and economic impacts
- Feedback session1: Minimum flow and allocation
- Overview of groundwater management options
- Feedback session 2: Maximum allocation volume
- Summary of key messages
- Where to from here...

Option A - “Year round flow continuity”

700 l/s @ Clutha confluence

- Approx.1,000 l/s at The Larches
- Optimum flow for adult and juvenile rainbow trout, and year round habitat for juvenile trout in the lower reaches of the Cardrona
- Run of the river irrigation difficult in average or dry year

Option B - “Peak holiday season flow”

May – Jan: 700 l/s @ Clutha confluence

Feb – April: 400l/s @ The Larches

- Flow continuity May -Jan (incl. peak tourist season)
- Optimum flow for rainbow trout adult, juvenile & spawning. Allows adult trout to return to the Clutha
- Moderate irrigation restriction in January, but allows irrigation during driest part of the year
- Distributes water resources between “upper” and “lower” water takes

Option C - “Extended low flow”

May – Dec: 700 l/s @ Clutha Confluence

Jan – April: 400 l/s @ The Larches

- Flow continuity from May to Dec.
- Optimum flow for rainbow trout adult, juvenile & spawning. Allows adult trout to return to Clutha in Nov/Dec
- *Status quo* for current irrigation practice - little restriction
- Distributes water resources between “upper” and “lower” water takes

Primary allocation limit

- The default allocation "target" is 500 l/s

- The current estimated actual take is 1,160 l/s

- Suggested allocation limit: between **500** and **1,000 l/s:**
  - Will allow current water users to operate
  - Maintains or increases surety of supply
  - Encourages efficient water use

Economic and social impacts

Minimum flow & aquifer restriction level

Reduced surety of supply

- Does not affect all users (e.g. Dom. supply, stock water)
- Dependant on:
  - Frequency
  - Duration
  - Timing
- Short & long term effects
- Mitigating measures:
  - Rationing, rostering
  - Infrastructure

Allocation limit& Max. Allocation volume

Limited water availability

- Impacts vary
  (e.g. Existing vs. new takes)
- Direct & flow-on effects
- Mitigating measures:
  - ➢ Change land management
  - ➢ Infrastructure - access to alternative sources

Feedback Session 1
Options for minimum flow primary allocation

How do these options affect you?

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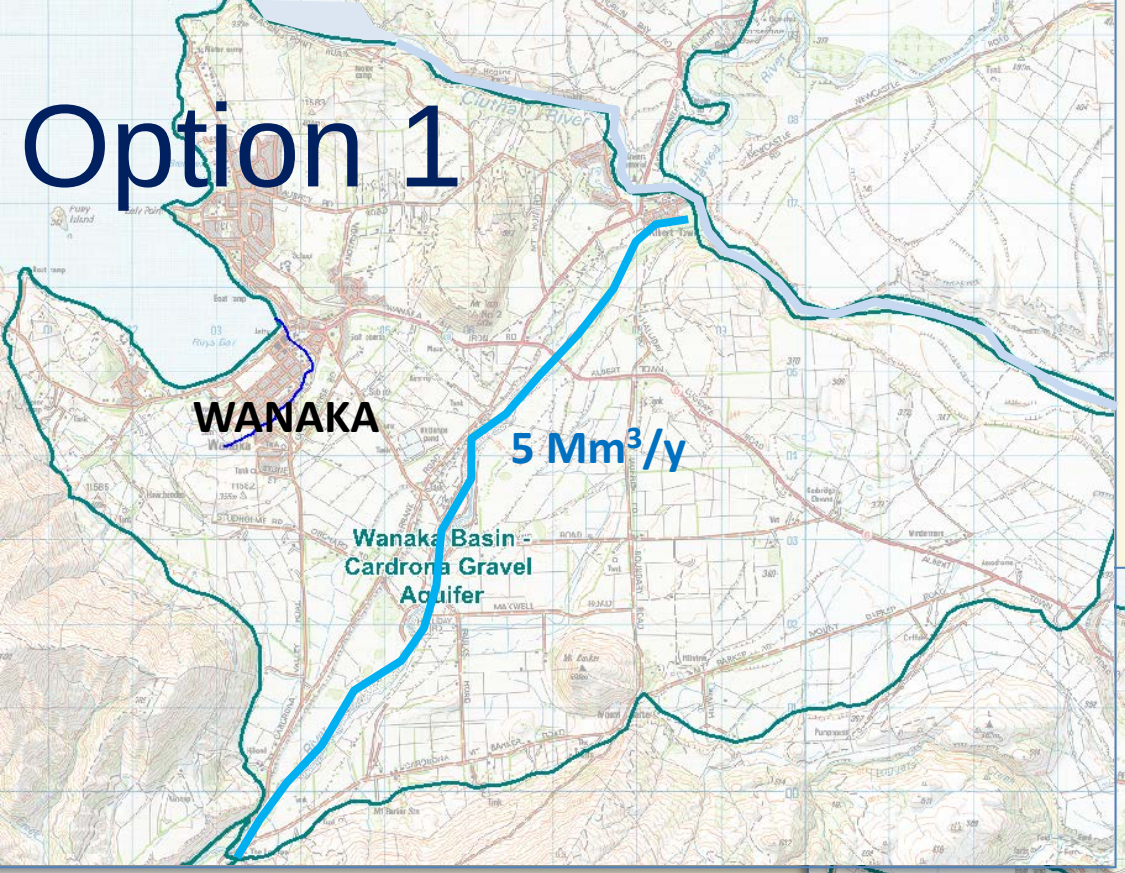
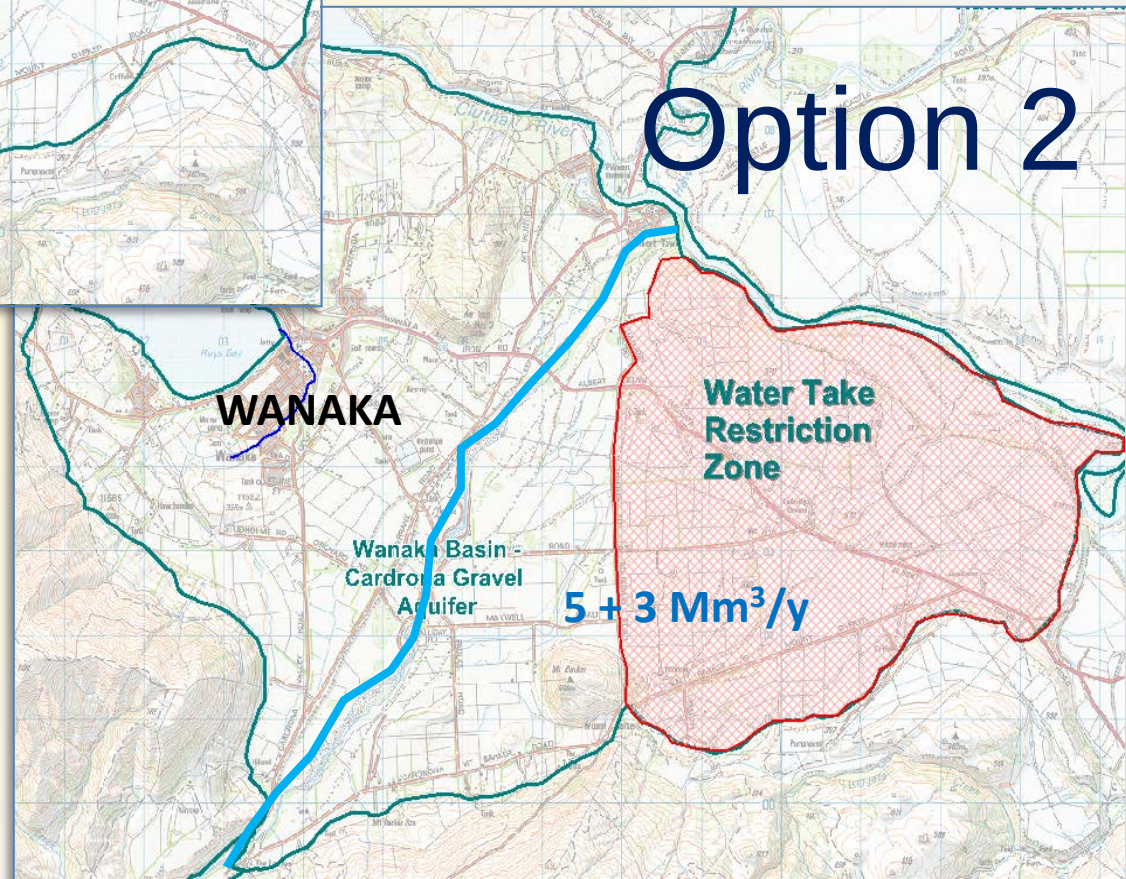
Groundwater Management Options

- **GW Option 1**: Blanket Maximum Allocation Volume
  - Set MAV to 5 million cubic m per annum (Mm^3/a) across the whole Wanaka Aquifer

- **GW Option 2**: Higher MAV & partial Water Take Restriction Zone
  - Set MAV to 8 Mm^3/a for whole aquifer
  - Set restrictions on the amount of water table drop in the eastern area of the aquifer

Water Take Restriction Zone Options





Groundwater consents can be restricted if monitored bore water levels decline to critical depths.

(Domestic & municipal bores unaffected)

Feedback Session 2
Options for maximum allocation volume

How do these options affect you?

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Where to from here....

How to provide further feedback

- Provide any further feedback by 22 July
- Workshop materials, feedback forms on the website www.orc.govt.nz
- 0800 474082
- Email: policy@orc.govt.nz

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Supplementary allocation

- Current supplementary minimum flow is 2,860 l/s (mean flow) at the Clutha confluence

- We suggest the following supplementary allocation regime

Supplementary minimum flow @ Clutha confluence (l/s)	Allocation block size (l/s)
1,500	500
2,000	500
2,500	500
3,000	500