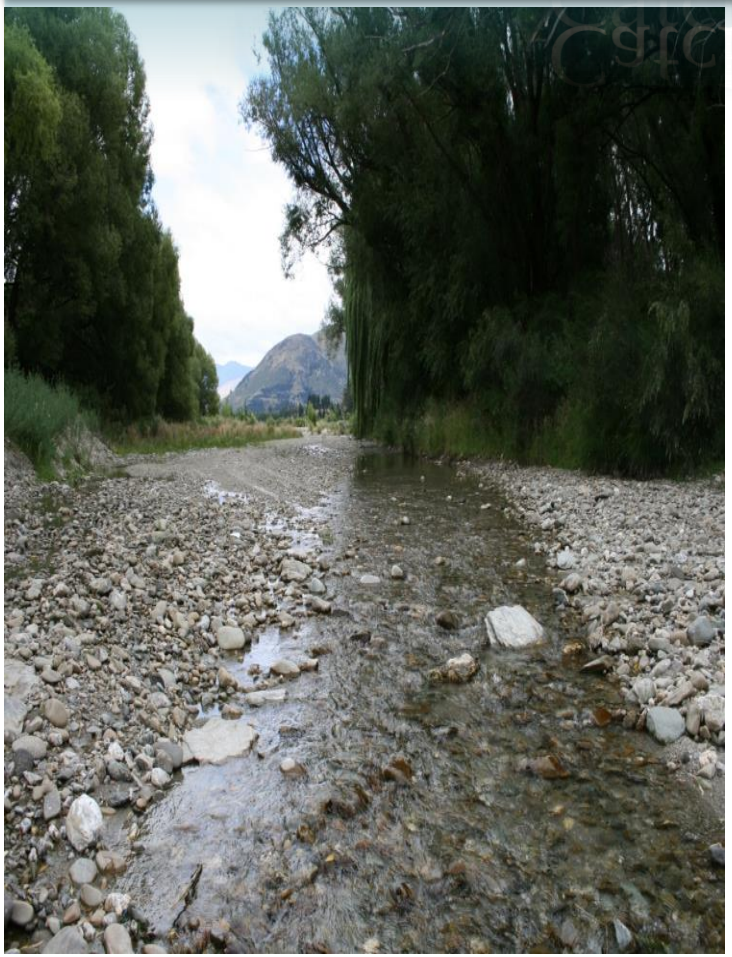
Water Management & the Cardrona Catchment



Tonight:

1. Welcome
2. Background/ update
3. Relationship between ground & surface water
4. Group discussions
5. Where to from here...

Process


Workshop #1 (June 2010)
- catchment values
Workshop #2 (February 2012)
– scenarios / futures
Workshop #3+
– potential regime
Consultation paper
Notify proposed plan change
RMA process
Changes put into effect

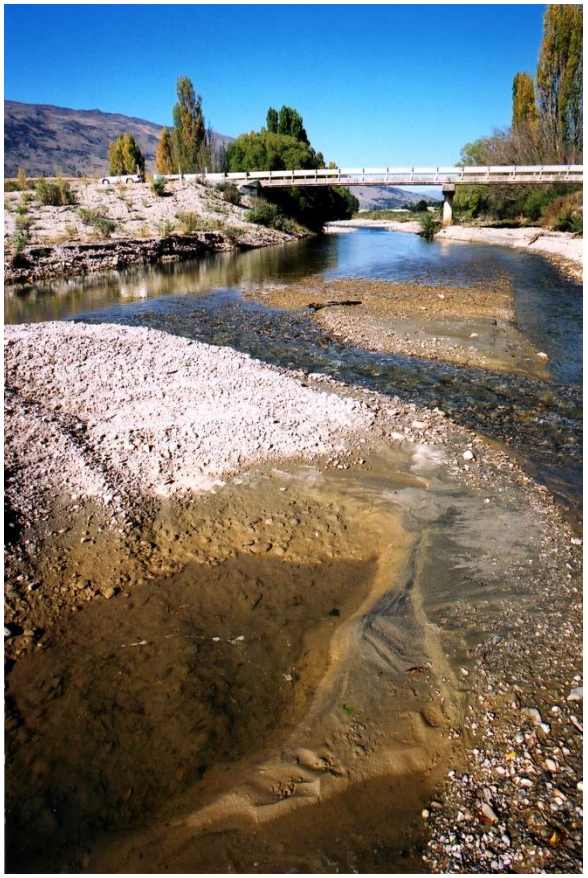
Update

- Clear messages from community

  - Last workshop held 2010

  - Community values / ‘wants’
    - Irrigation and viability of farming
    - Protection of aquatic ecosystems
    - Recreation & aesthetics
    - Protection of water resource for all

- Since then...



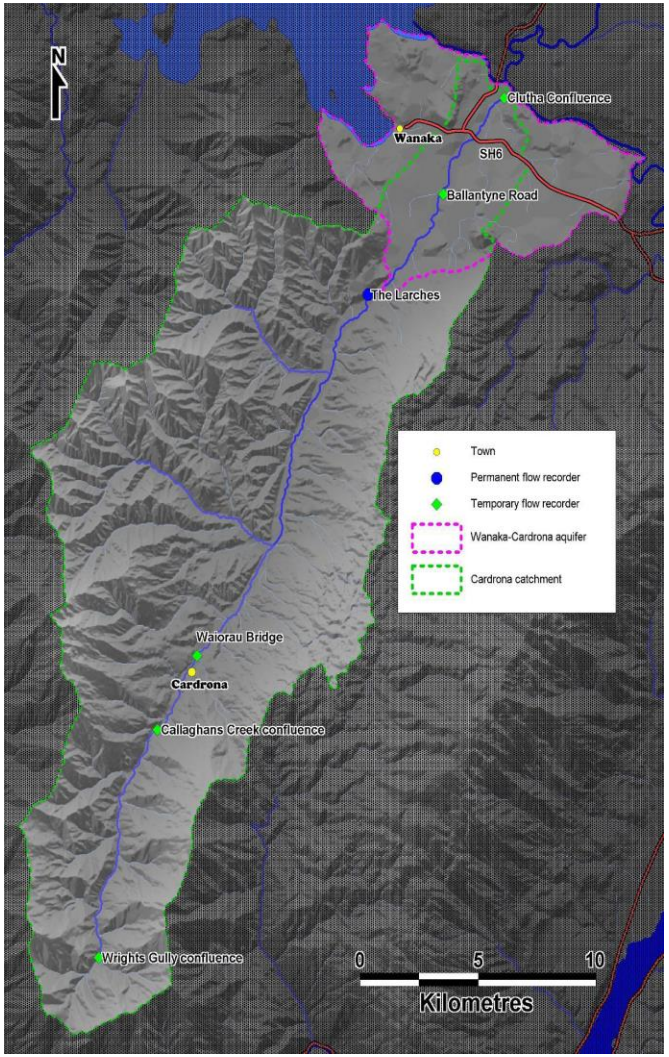
Why integrated water management?

- Studies show all sources of water are interconnected and need to be managed as one

- PC1C effective April 2010
  - Local water source / local use
  - Efficiency expected
  - Nature of taking – when, how often, amount

- Current sources of water:

  - Cardrona River *(100% allocated)*
  - Cardrona Alluvial Ribbon Aquifer *(100% allocated)*
  - Wanaka-Cardrona aquifer *(dependent of maximum allocation volume decided)*
  - Clutha River *(allocation available)*



What does this mean for water takes?

- Main stem takes

  - minimum flow & rationing

- Cardrona Alluvial Ribbon Aquifer

  - managed as surface water

  - minimum flow & rationing

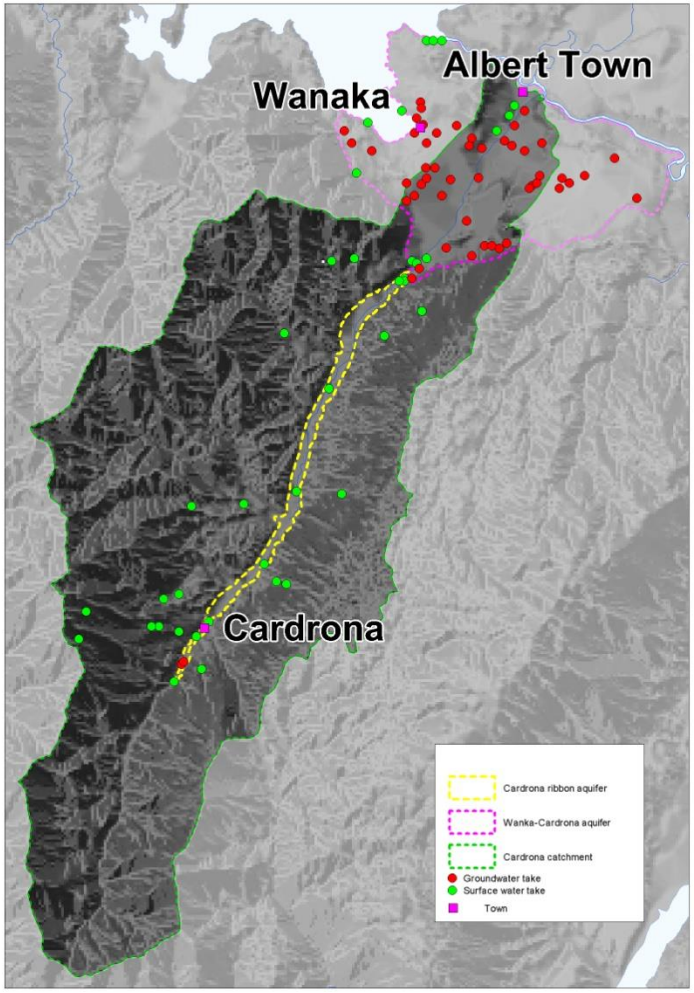
- Tributaries

  - connected tributaries *(naturally flows to main stem)* – minimum flow & residual flows & rationing

  - unconnected tributaries *(naturally disconnects from the main stem)* – residual flows if in-stream values exist

- Unconnected groundwater

  - maximum allocation volume



So what did the science show us?

Group discussions / feedback

Scenario 1: continuity	Scenario 2: targeted	Scenario 3: no continuity
Significant reduction in water available for abstraction	Flows targeted for critical irrigation times. Impact on irrigation depends on levels.	Minimal reduction in water for abstraction (similar situation to now)
Water along length of river all year for river based tourism	Water in river at key times for river based tourism e.g. early summer. Upper catchment flows unaffected	River dry from the Larches to SH 6 Bridge impacting on river based tourism in lower river
Water along length of river all year for recreation	Targeted e.g. water in river for river based recreation early/mid summer. Upper catchment flows unaffected	River dry from the Larches to SH6 bridge impacting on recreation in this reach
Close to optimum flow for juvenile trout. Enables trout migration every year	Maintains flows for trout migration at key times	Trout migration limited most years
Aesthetic - flowing river maintained at all times	Aesthetic - flowing river at targeted times of the year	Aesthetics - river flowing above Larches /below SH6 bridge. Dry at Ballantyne Road bridge
Increase in aquifer recharge from river relative to minimum flow levels		

Where to from here...

Workshop 3 – Suggested option

Consultation paper (draft)

Notify proposed plan change

RMA process

Changes put into effect