

Waimakariri Land and Water Solutions Programme

Targeted Engagement with Consent holders

18 April 2018

Little Ashley, Waikuku & Taranaki

Mō tātou, ā, mō kā uri ā muri ake nei

For us and our children after us

For more information visit www.waimakariri-water.nz
or find us at facebook.com/canterburywater

Workshop Agenda

- Purpose and planning framework
- Flow and allocation limit options
- Breakout session
- Groundwater allocation options
- Group discussion
- Nitrate limit options
- Group discussion
- Close

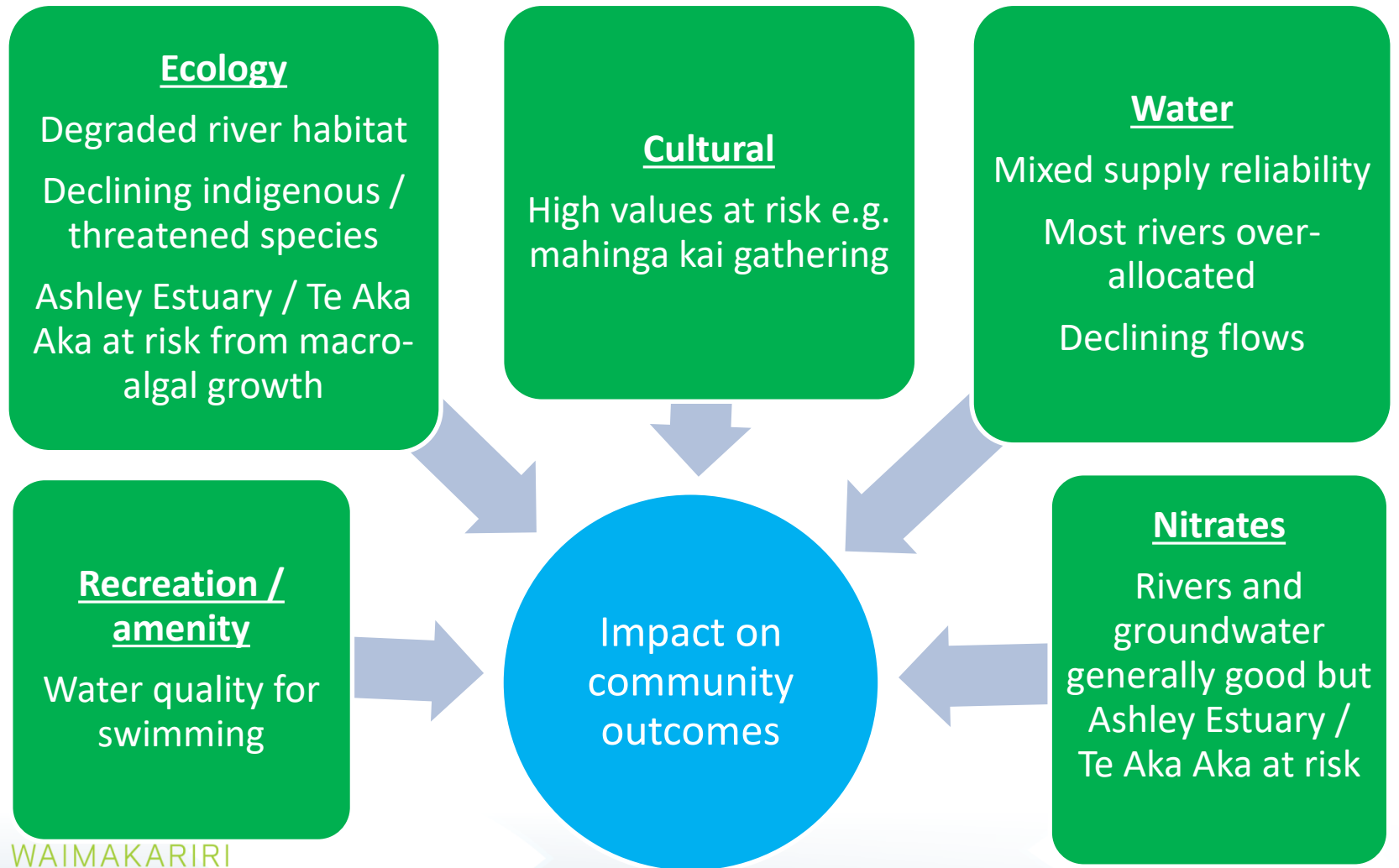


Workshop purpose

- Overview of planning framework and what's in the LWRP now
- Gather your thoughts on options Zone Committee is considering for:
 - River minimum flows
 - Allocation limits (rivers and groundwater)
 - Phasing out over allocation
 - Nitrate limits (rivers and groundwater)
 - Managing risk of nitrate over-allocation

To better support stream ecology, the cultural health and other uses of rivers and streams and the estuary

What are the issues?



Zone Committee's solutions include....

1. Practical Actions



Actions on the ground by landowners, industry, community and ECAN etc.

2. Water Quality & Quantity Limits, policies and rules



Plan Change to Section 8
Land and Water Regional Plan



Planning framework



National policy on managing freshwater

NPS-FM requires council plans to:

- Set limits for use of water resources that specify:
 - A minimum flow (L/s)
 - A total allocation rate (L/s)
 - Water quality e.g. nitrates (mg/L)
- Avoid further over-allocation
- Reduce allocation in over-allocated catchments within a defined timeframe

LWRP flow regime (Section 8)

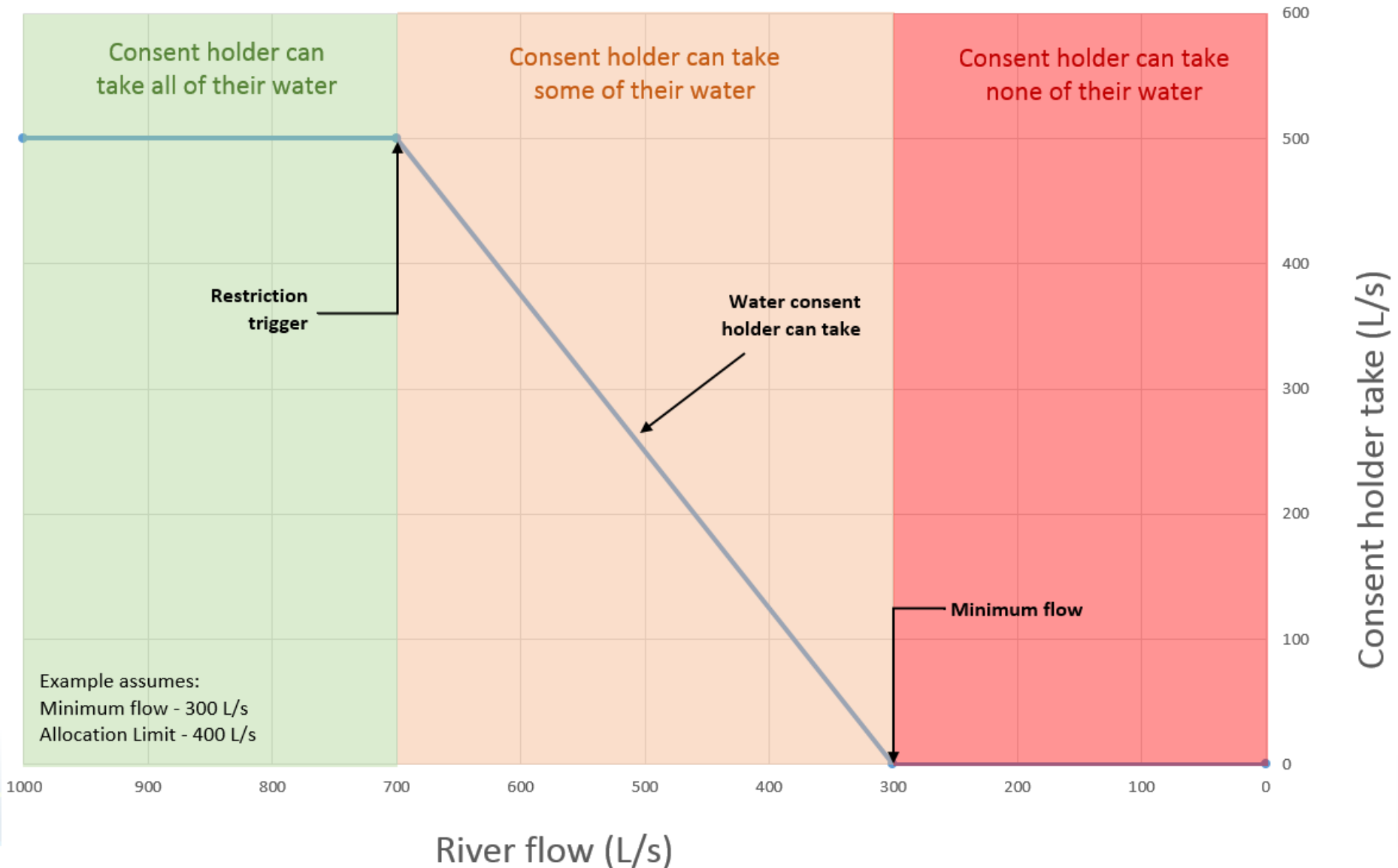
River or Stream	Minimum flow L/s	Allocation limit L/s (adjusted limit)
Ashley River (A Block)	2500 Jan-Jul 4000 Aug-Nov 3000 Dec	700
Ashley River (B Block)	3200 Jan-Jul 4700 Aug-Nov 3700 Dec	500
Ashley River (C Block)	6000	3000
Taranaki Creek	120	61 (149)
Waikuku Stream	100 (Mon-Fri) 150 (Sat-Sun)	460 (831)
Little Ashley Creek	50 (30 four days per month)	172 (344)
Saltwater Creek	100	408 (417)

Plus partial restrictions on pro-rata basis to maintain min flows (Policy 8.4.1)

Who needs a minimum flow?

- Surface water takes
- Shallow groundwater takes connected to stream or river classed as having a:
 - **Direct** stream depletion effect
 - **High** stream depletion effect greater than 5 L/s

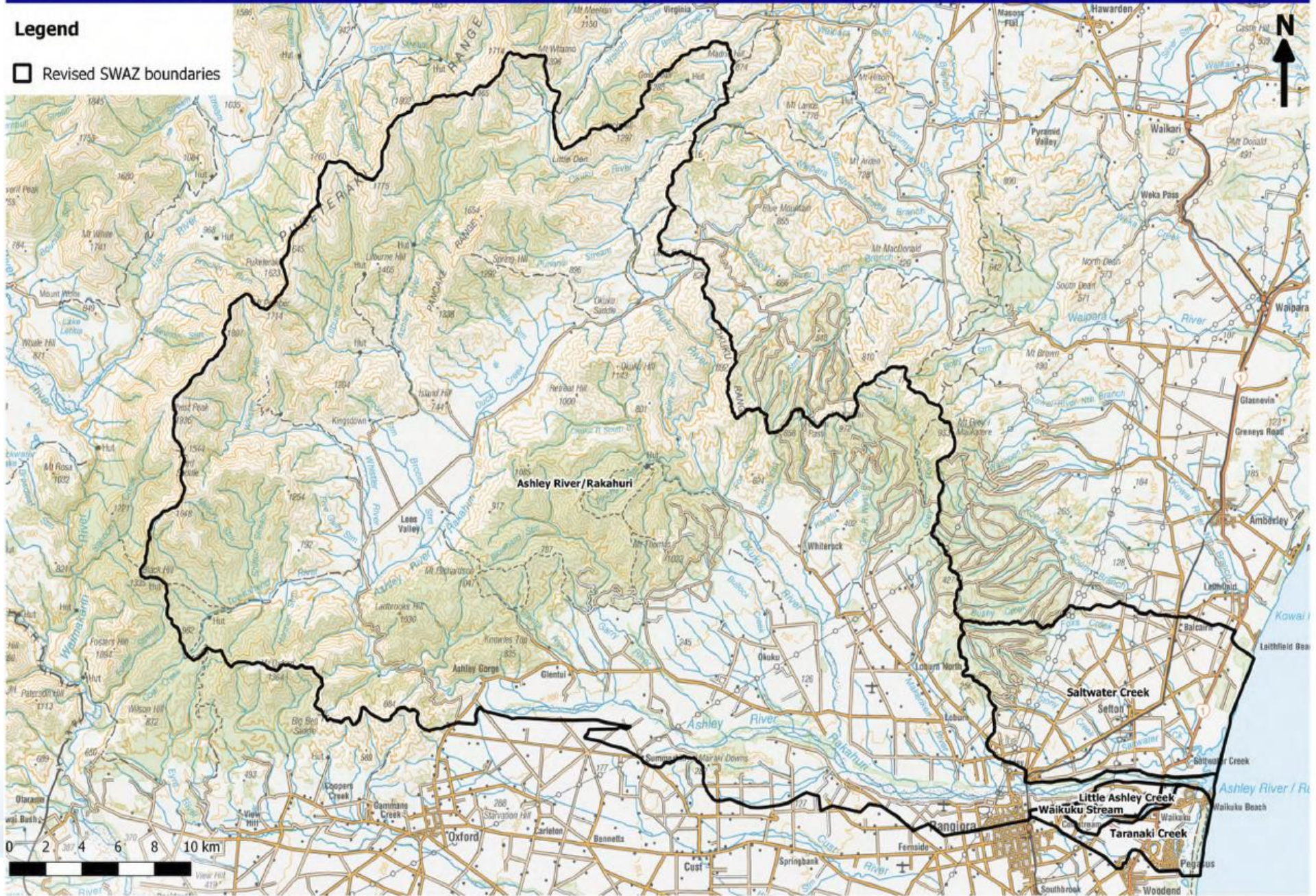
Partial restrictions



Surface Water Allocation Zones - Overview

Legend

Revised SWAZ boundaries



Current river allocation

River or Stream	LWRP limit L/s (adjusted limit L/s)	Est. allocation L/s
Ashley River (A Block)	700	1082
Ashley River (B Block)	500	139
Ashley River (C Block)	3000	293
Taranaki Creek	61 (149)	274
Waikuku Stream	460 (831)	1033
Little Ashley Creek	172 (344)	63
Saltwater Creek	408 (417)	550

The amount of water allocated within an allocation limit is the sum of:

- (a) the maximum rate of abstraction of each surface water take and
- (b) the stream depletion effect of each groundwater take calculated in accordance with Schedule 9

LWRP means...

- New takes above allocation limit prohibited
- Existing users can apply for replacement consents (must be at least 3 months before expiry)
- You would be given LWRP compliant conditions including:
 - Consent volume calculated on efficient use
 - Plan minimum flow if surface water take or groundwater take with depletion effect categorised as “Direct” or “High” with greater than 5 L/s effect on a surface water body
 - Pro-rata restrictions above min flow
 - Up to 10% reduction in previous rate of take and/or volume if catchment over-allocated

ZC options for your feedback

River or Stream	Min flow options	Allocation options
Ashley River A permits	<ul style="list-style-type: none"> LWRP – 2500/4000/3000 L/s 	<ul style="list-style-type: none"> LWRP – 700 L/s
Ashley River B permits	<ul style="list-style-type: none"> LWRP – 3200/4700/3700 L/s 	<ul style="list-style-type: none"> LWRP – 500 L/s Cap at current allocation – 139 L/s Cap current allocation + ring-fence a cultural allocation < 500 L/s
Ashley River C permits	<ul style="list-style-type: none"> LWRP – 6000 L/s 	<ul style="list-style-type: none"> LWRP – 3000 L/s Cap at current allocation – 293 L/s Cap current allocation + ring-fence a cultural allocation < 3000 L/s
Taranaki Ck.	<ul style="list-style-type: none"> LWRP/Cultural – 120 L/s 	<ul style="list-style-type: none"> LWRP (adjusted limit) – 149 L/s
Waikuku Stm.	<ul style="list-style-type: none"> LWRP – 150 L/s (all week) Ecological – 250 L/s 	<ul style="list-style-type: none"> LWRP (adjusted limit) – 831 L/s Feasible limit < LWRP adjusted limit
Little Ashley Ck.	<ul style="list-style-type: none"> LWRP/Cultural – 50 L/s (all the time) 	<ul style="list-style-type: none"> Cap at current allocation – 63 L/s
Saltwater Ck.	<ul style="list-style-type: none"> LWRP – 100 L/s Ecological/Cultural – 148 L/s 	<ul style="list-style-type: none"> LWRP (adjusted limit) – 417 L/s Feasible limit < LWRP adjusted limit

Options for phasing out over-allocation of rivers

- Switch to deep groundwater
- Reducing allocation (% haircut for everyone)
- Prohibiting or restricting water transfers (% surrender)
- Voluntary surrender of water permits
- Not re-allocating lapsed or expired consents
- Allocate water based on actual use data
- Allocate water based on modelled efficient use
- More accurate stream depletion assessment model
- Water User Groups (sharing water when takes restricted)
- Offset mitigations in short term (e.g. riparian plantings)

Could apply some of above when apply to renew consents OR earlier by consent review

Breakout session

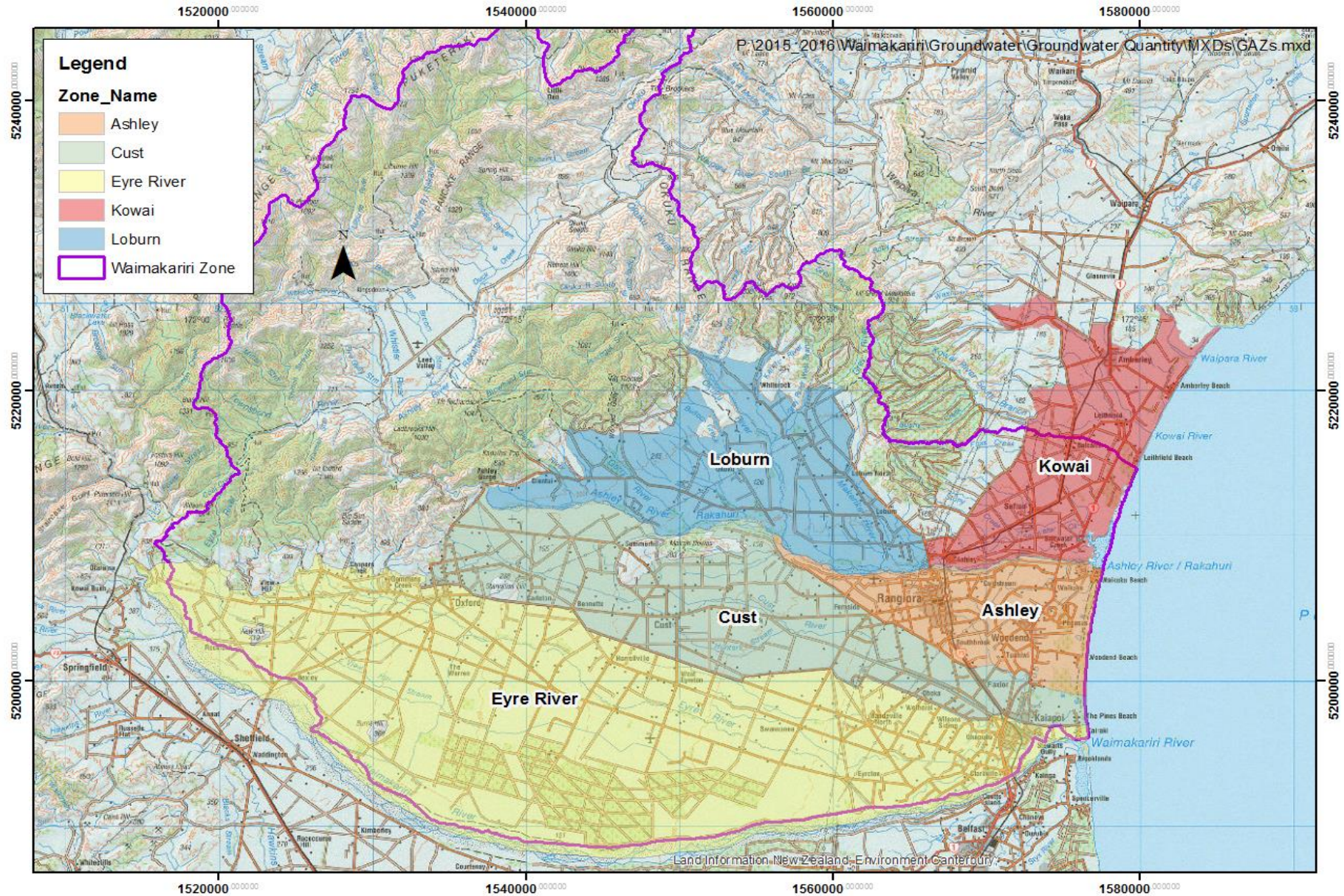
- Small group discussion on zone committee's options for:
 - minimum flows
 - allocation limits and
 - ways to phase out over-allocation

Questions

1. Do you have any concerns about the minimum flow and allocation limit options?
2. Any ideas for how we can address those concerns?
3. How should over-allocation of water be phased out?

Groundwater quantity

Groundwater zones



Current groundwater allocation

Groundwater Zone	Limit million m ³ /year	Est. allocation as % of limit
Ashley	29.4	54 %
Cust	56.3	30%
Eyre	99.07	104%
Kowai	17.4	53%
Loburn Fan	40.8	0.5%

Options for Groundwater allocation

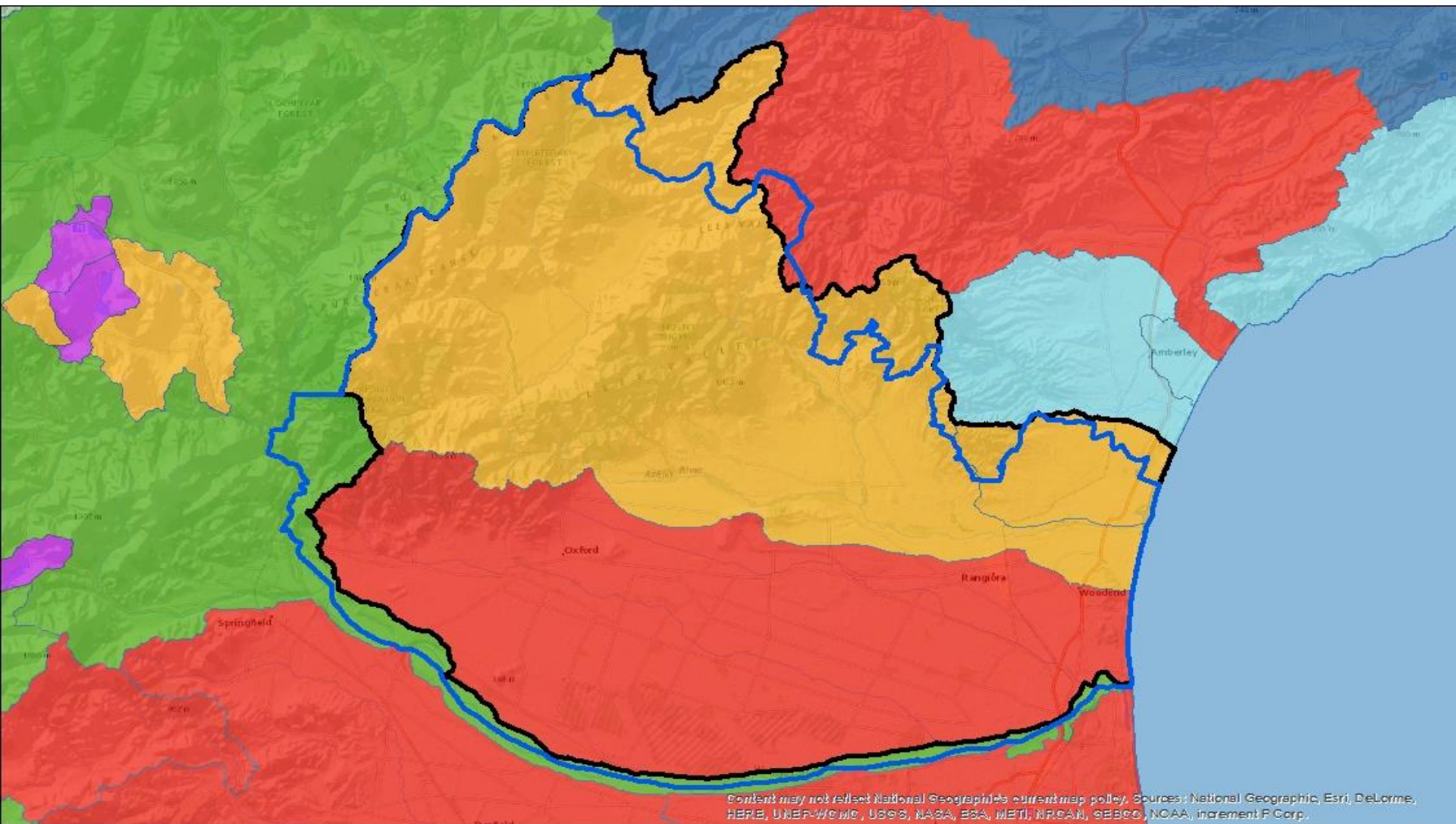
Groundwater Zone	Allocation limit million m ³ /year	Est. Allocation (% allocated)	Options
Ashley	29.4	(54%)	<ul style="list-style-type: none"> • Cap at current allocated volume; and/or • given % for new takes (e.g. 10%); and/or • enable switches from Surface water
Kowai	17.4	(53%)	
Loburn Fan	40.8	(0.5%)	
Lees Valley (Proposed new zone)	To be determined	To be determined	<ul style="list-style-type: none"> • Cap at current allocated volume; and/or • given % for new takes (e.g.10%)

Question

1. Do you have any concerns about the options for groundwater allocation limits?
2. Any ideas for how we can address those concerns?

Nitrates

Nutrient zones



Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Lake Zone

Unclassified

Refer to Hurunui Waiau River Regional Plan

Water Quality Outcomes Not Met

At Risk

Meets Water Quality Outcomes

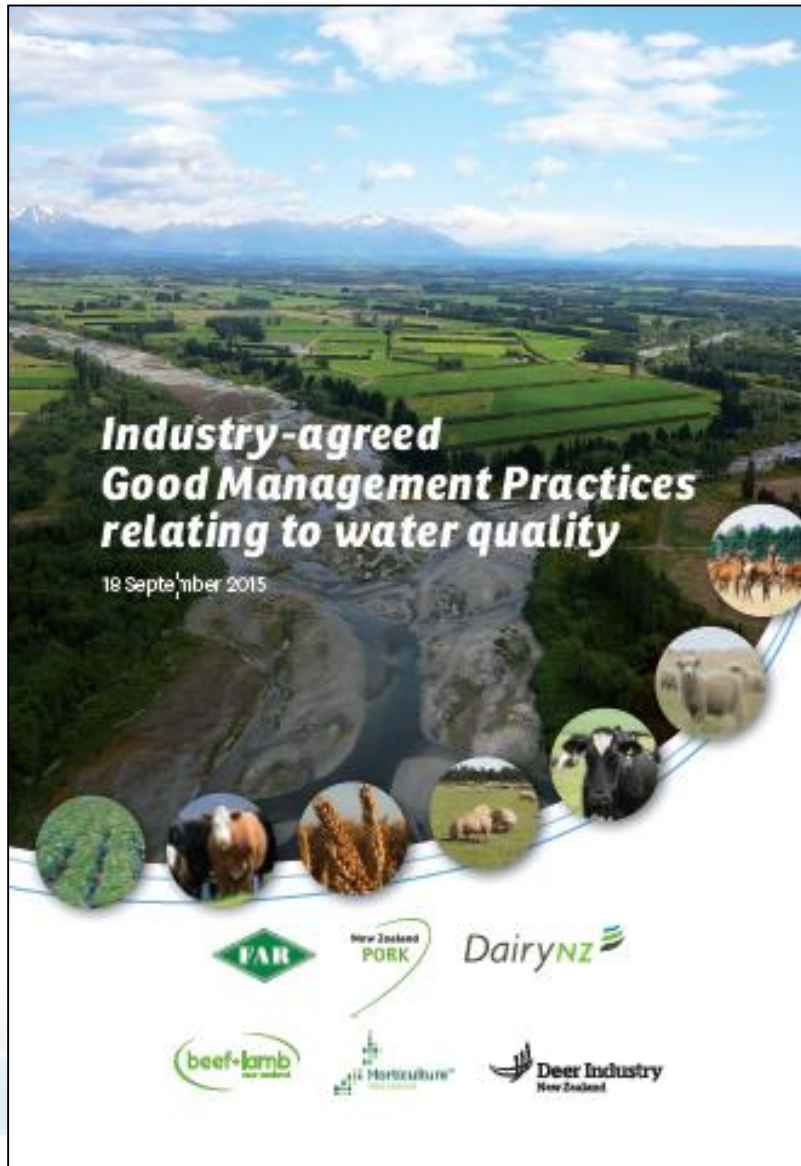
Waimakariri CWMS zone boundary

Waimakariri sub regional chapter boundary

0 5 10 20 Kilometers

N

Plan Change 5 nutrient management



- ✓ Retains NAZ colours and boundaries
- ✓ Retains audited Farm Plans
- ✓ Retains OVERSEER® as main tool for estimating nutrient losses
- ✓ Brings GMP into the rules through the Farm Portal
- ✓ Uses descriptive consenting thresholds to address issue with OVERSEER® version changes
- ✓ Reduces high historic nutrient losses

Options for river nitrate limits

Stream or River	Current measured mg/L nitrate-N	ZC preferred options mg/L nitrate-N
Ashley Gorge	0.2	0.2*
Ashley SH1	0.3	0.3*
Saltwater Creek	0.7	1.0
Waikuku Stream	1.2	1.0
Taranaki Creek	1.2	1.0
Little Ashley Creek	No data	1.0

*Zone committee considered a limit of 0.1 mg/L at Ashley Gorge and SH1 but this requires a 48% and 67% reduction in N load respectively so was considered unrealistic given the relatively low intensity farming in the catchment

ZC preferred groundwater nitrate limit

Option	Summary
Current measured concentrations	1.1 mg/L nitrate-N as an annual average

Note: the LWRP region wide limits for groundwater nitrate-N are an annual average concentration of <5.65 mg/L and maximum concentration of <11.3 mg/L.

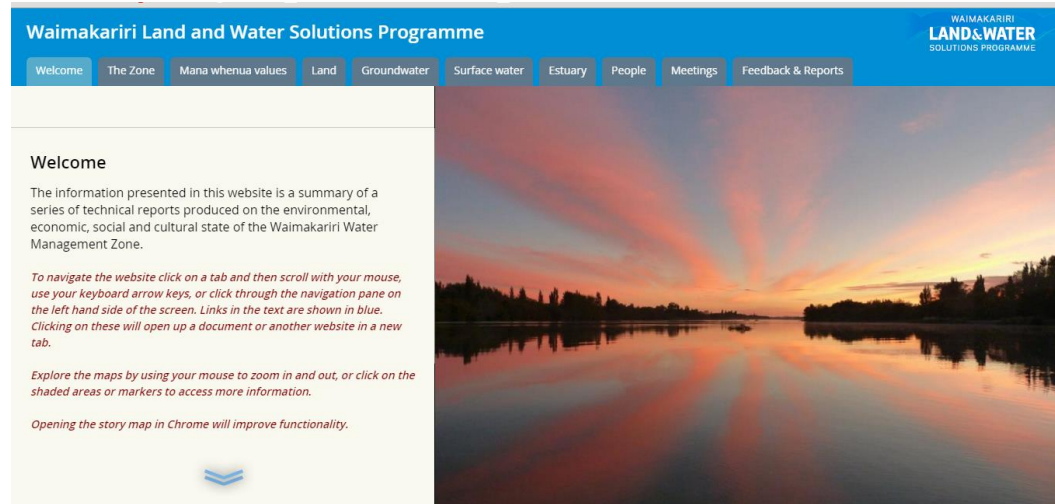
Options for managing nitrate risk

Option	Summary
LWRP orange zone nutrient rules (Status quo assuming Plan Change 5)	<ul style="list-style-type: none">• Ashley and Saltwater Creek classed as “orange” nutrient zones (outcomes at risk)• Consent thresholds: > 50 ha irrigation OR area of property used for winter grazing of cattle exceeds 10 ha on properties up to 100 ha; 10% of the property for properties 100 ha - 1000 ha; or 100 ha for properties larger than 1000 ha• Consent granted above thresholds if comply with “Baseline loss rate” and from 2020 “Baseline GMP loss rate”• Can seek consent to exceed baseline loss rate but generally inappropriate (non-complying)
LWRP red zone nutrient rules	<ul style="list-style-type: none">• Changes nutrient management rules to “red” (outcomes not met)• Does not change consent thresholds• No more that 10 ha increase beyond Feb 2016 irrigated area for permitted activities• For consented activities would prohibit famers seeking consent to exceed baseline loss rate

Questions

1. Do any concerns about any of the nitrate limit options for rivers and groundwater?
2. Do you have any concerns a change from orange to red zone nutrient allocation zone rules?

Thank you for your time!



Go to **waimakariri-water.nz** for more information
or provide feedback.