Plan Change 6
Lake Forsyth/Wairewa Catchment

Hearing 19 April 2016

Environment Canterbury
Regional Council
Kaunihera Taiao ki Waitaha

Tabled at Hearing Wednesday 20 April 2016

Plan Change 6

Alastair Picken

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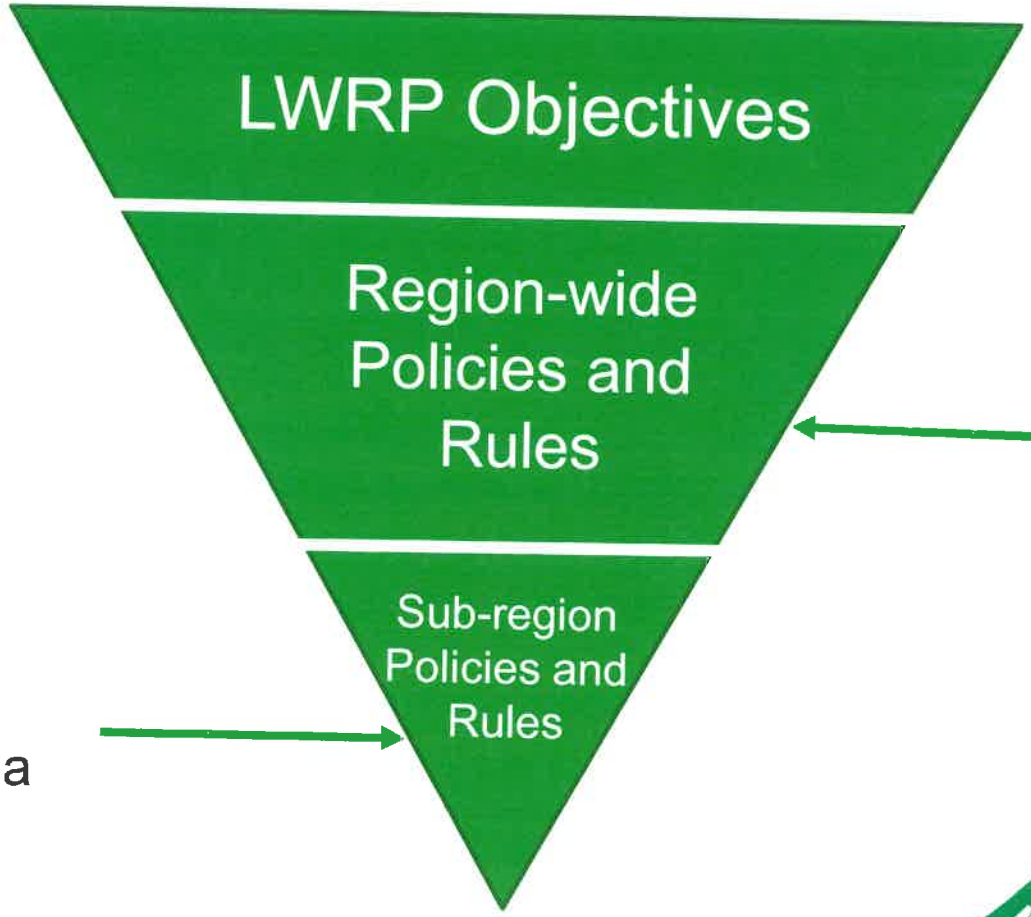
Land and Water Regional Plan Architecture



Plan Change 5

Plan Change 6
Section 10 –
Banks Peninsula

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How PC5 proposes to manage P at a region-wide level

- High Runoff Risk Phosphorus Zone added to planning maps
- FEP to identify critical areas and actions to minimise phosphorus and sediment loss (PC5 Policy 4.38E)
- Schedule 7 Farm Environment Plan amended (consented activities)
- New Schedule 7A Management Plan (permitted activities)

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Why does PC6 manage P differently?

- Valley Floor Area is largely outside the PC5 Phosphorus Risk Zone
- The Valley Floor Area is identified as the primary source of sediment to the lake
- Additional rules required including stock exclusion from rivers and their riparian margins

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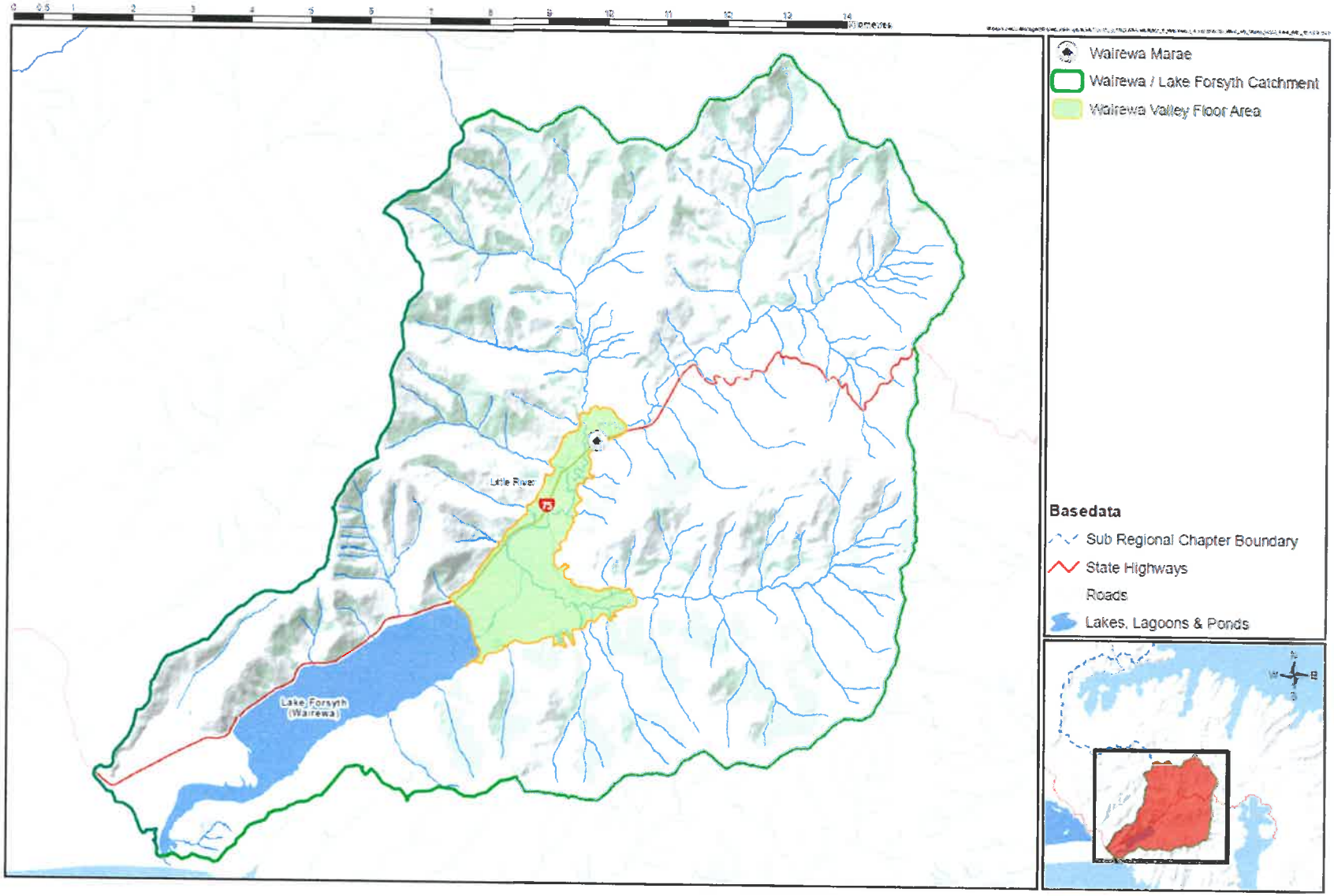
Lake Forsyth/Wairewa catchment



Purpose of Plan Change 6

- Recognise the cultural significance and recreational resources of the lake
- Address water quality issues in the lake and rivers by reducing sources of contaminants
- Support interventions that will contribute to lake restoration
- Not conflict with flood management objectives

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Cultural Importance

- A new policy to recognise the significance of Lake Forsyth/ Te Roto o Wairewa to Ngāi Tahu *[Policy 10.4.4A]*

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Addressing contaminant sources

- Enable works to stabilise river banks if done in accordance with a Valley Floor Area River Bank Erosion Plan

[Policy 10.4.1(b)(c); Rules 10.5.1, 10.5.2, 10.5.3; Schedule 24c]

- From 2020, prohibit all stock from accessing the riverbed and riparian margins of rivers and the lake within the Valley Floor Area *[Policy 10.4.1(a); Rules 10.5.4, 10.5.5]*

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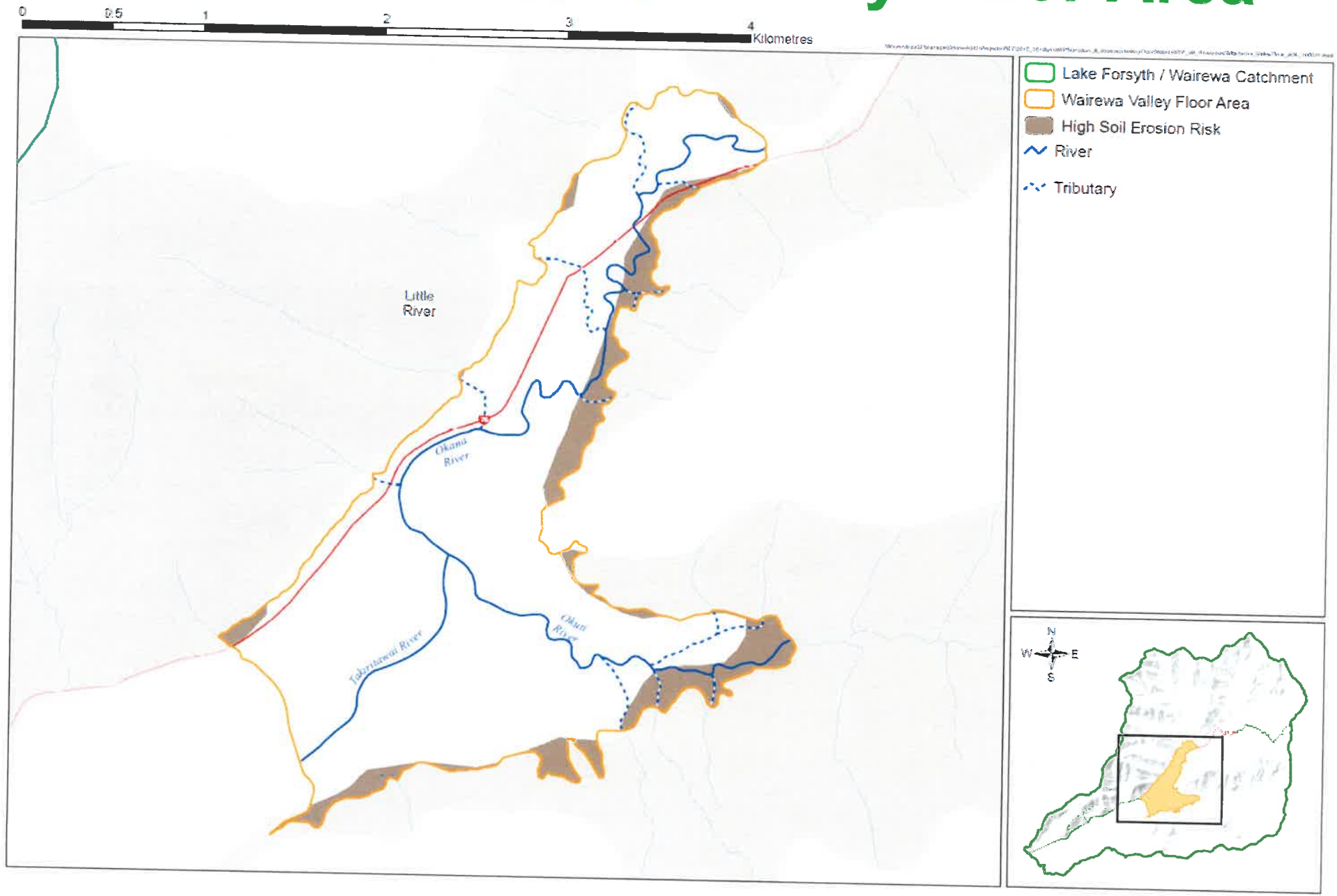
Stock exclusion - Valley Floor Area



Why prohibited status?

- Severity of erosion issue - stream banks main source of sediment to lake
- Restoration and protection of riparian vegetation to strengthen banks is key
- Stock exacerbate bank instability and erosion and damage riparian vegetation
- Regional rules manage “intensive stock” but the issue here is “non-intensive” stock access to rivers and lake
- Regional rules cover bed and banks but not riparian margins
- Zone committee Recommendation 5.6 – exclude all stock from waterways

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Valley Floor Area River Bank Erosion Plan

Schedule 24c sets out content:

1. Maps & location
2. Description of proposed works
3. Description of maintenance programme
4. Actions to be taken after flood events
5. Proportionate assessment of effects

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Wastewater discharges

- Minimise phosphorus in community wastewater discharges *[Policy 10.4.1(e)]*

- Prevent inundation of septic tanks in flood prone areas *[Policy 10.4.1 (f)]*

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Intercepting contaminants upstream of the lake

- Enable the construction of a sediment retention basin and wetland *[Policy 10.4.1(d); Rule 10.5.6]*

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Lake investigations

- Permit disturbance of the lake bed for purpose of investigating "historical" phosphorus

[Policy 10.4.4; Rules 10.5.7, 10.5.8]

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Lake opening & closing

- Enable artificial opening and closing of the lake to support cultural values, fish passage, and water quality improvements

[Policy 10.4.4(c); Rule 10.5.9]

Consents decision

- Two opening sites – beach and canal
- Flood risk (beach or canal)
  - At 2.7 m or storm event forecast
- Land drainage (beach or canal)
  - At 2.1 m (May to Aug); 2.3 m (Sep to Apr)
- Cultural and ecological (canal only)
  - Any time

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Freshwater outcomes

- Table 10(a) contains outcomes for the Ōkuti, Ōkana and Takiritawai Rivers

- Table 10(b) contains outcomes for Lake Forsyth/Te Roto o Wairewa

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Water quality limits

- Table 10(d) contains limits for the Ōkuti and Ōkana Rivers

- Table 10(e) contains limits and targets for Lake Forsyth/Te Roto o Wairewa to be met by 2030

- Table 10(f) contains an annual phosphorus load target for the Lake to be met by 2030

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NPSFM (rivers)

PC6 Table	NPSFM Attribute	Current state (2014-15) expressed as NPSFM "band"	PC6 Outcome/ Limit expressed as NPSFM "band"
10a - outcomes rivers	Periphyton	Not monitored	B
	E.coli	C (Ōkuti R)* B (Ōkana R)	A
10d – limits rivers	Nitrate	A (Ōkuti R)* A (Ōkana R)	A
	Ammonia	A (Ōkuti R)* A (Ōkana R)	A

* Five year grade (July 2010 to June 2015) because Ōkuti River only sampled quarterly

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NPSFM (lakes)

PC6 Table	NPSFM Attribute	Current state (2014-15) expressed as NPSFM "band"	PC6 Outcome/ Limit expressed as NPSFM "band"
10b - outcomes lakes	Cyanobacteria	C*	C
	E.coli	A	A
10e – limits lakes	Total Phosphorus	D	C
	Total Nitrogen**	C/ D	C
	Chlorophyll a	D	C
	Ammonia	A	A

* July 2012 to June 2015 (36 samples)
** Intermittently closing and opening lagoons (ICOLs) are not included in brackish lakes

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Water quantity limits

- Table 10(c) contains minimum flow, restrictions and allocation limits for:
  - Ōkuti River and its tributaries
  - Ōkana and Takiritawai Rivers and their tributaries

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Summary

1. Targeted plan change that works as part of the LWRP and with other non-regulatory actions to achieve community agreed freshwater outcomes
2. Enabling provisions for bank stabilisation, sediment basin/wetland, lake investigations and artificial opening/closing
3. Strong direction on stock exclusion from rivers and riparian margins in Valley Floor Area
4. Freshwater outcomes and limits that meet or exceed NPSFM national bottom lines

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