



Land use change on the margins of lowland Canterbury braided rivers, 2012-2019

Rangitata River, Canterbury



Undeveloped
braided river
margins =
ecological
values and
ecosystem
services



Development
of braided river
margins = loss
ecological
values.

Flood
protection =
loss of natural
character

River	River area -1990 baseline (ha)	Area (ha)			
		1990-2012 (%)	2012-2019 (%)	Total change 1990 – 2019 (%)	
Ashburton River	6348	1248 (20)	160 (2.5)	1,408 (22.2)	
Ashley River	4806	343 (7)	68 (1.4)	411 (8.6)	
Blythe River	44	0	35 (79.5)	35 (79.5)	
Clarence River	761	161 (21)	8 (1.1)	169 (22.2)	
Conway River	916	60 (7)	16 (1.7)	76 (8.3)	
Hapuku	400	14 (4)	0	14 (3.5)	
Hinds River	1671	212 (13)	111 (6.6)	323 (19.3)	
Hurunui River	3810	255 (7)	21 (0.6)	276 (7.2)	
Kowhai	697	2 (0.3)	0	2 (0.3)	
Kowai	212	10 (5)	0	10 (4.7)	
Makihikihi River	172	38 (22)	16 (9.3)	54 (31.4)	
Opihi River	2209	159 (7)	47 (2.1)	206 (9.3)	
Orari River	2136	166 (8)	36 (1.7)	202 (9.5)	
Otaio River	619	20 (3)	56 (9.0)	76 (12.3)	
Pareora River	636	105 (17)	10 (1.6)	115 (18.1)	
Rakaia River	16132	2305 (14)	59 (0.4)	2,364 (14.7)	
Rangitata River	11276	2258 (20)	42 (0.4)	2,299 (20.4)	
Selwyn River	2132	339 (16)	63 (2.9)	402 (18.8)	
Waiau River	7964	2196 (28)	332 (4.2)	2,529 (31.8)	
Waihao River	587	113 (19)	17 (2.8)	13 (22)	
Waimakariri River	11180	719 (6)	14 (0.1)	733 (6.6)	
Waipara River	807	12 (1)	11 (1.4)	23 (2.8)	
Waitaki River	9049	894 (10)	130 (1.4)	1,014 (11.3)	
Total across all rivers	84564 ha	11,630	1,252 (1.5)	12,882 (15.2)	

Tenure	Area (ha) (% of total for each monitoring period)	
	1990-2012	2012-2019
Private freehold	6,974 (60%)	797 (64%)
Designated reserve land	2,792 (24%)	158 (13%)
Unalienated Crown Land	1,862 (16%)	297 (24%)

Conway River

Imagery
from
2004-2010



Conway River

Imagery
from
2010-2015



Conway River

Latest
Imagery



Hinds River

Imagery
from
2010



Hinds River



Imagery
from
2015

Hinds River

Latest
Imagery



Blythe River

Imagery
from 2004-
2010



Blythe River

Imagery
from 2017



Blythe River

Imagery from 2019

Note the
fringe of
willows
newly
planted on
the true left
“bank”



Blythe River

Flood control works designed to prevent the river taking the northern branch

Rakaia River

Imagery
from 2010

Rakaia River

Imagery
from 2019



Makikihi River



Imagery
from 2005

Makikihi River



Imagery
from 2018



Environment Canterbury Regional Council

Kaunihera Taiao ki Waitaha

*Taking action together to shape a thriving and
resilient Canterbury, now and for future generations.*

Toitū te marae o Tāne, toitū te marae o Tangaroa, toitū te iwi.

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