

Part 2: Updated Common Methods

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RIVER	REACH	DESCRIPTION	RIVER MANAGEMENT / OPERATION RESPONSES									PLANNING AND POLICY RESPONSES							EMERGENCY MANAGEMENT RESPONSES			ENVIRONMENT ENHANCEMENT RESPONSES				
			River Edge Envelope	River Bed Envelope	Recognition of Buffers as a River Management Tool	Pool Riffle Run Envelope	Historic Channel Lines	Isolated Works Support	Code of Practice	Mixed Vegetation Planting	Alternative land uses within planted buffers	Protection against deforestation in Upper Catchment	Land Use Controls	Designations	Flood Hazard Maps	Rural Stopbank Policy	Scheme Decision Making Policy	Abandonment/Retirement of Assets	Public ownership of river margins	Emergency Management Planning	Community Preparedness	Flood Forecasting and Warning System	Landslide Monitoring	Environmental Strategy	Community Support officer	Care Groups and Clubs
RUAMAHANGA	1	Ruamahanga Headwaters						✓	✓										✓		✓	✓		✓		
	2	Mount Bruce	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	3	Hidden Lakes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4	Double Bridges	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	5	Te Ore Ore to Waingawa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	6	Waingawa to Gladstone	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	7	Gladstone to Kokotau	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	8	Kokotau to Waiohine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
WAIPOUA	9	Waipoua Headwaters						✓	✓										✓		✓	✓		✓		
	10	Upper Waipoua	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	11	Mikimiki	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	12	North Masterton	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	13	Masterton	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
WAIANGAWA	14	Waingawa Headwaters						✓	✓										✓		✓	✓		✓		
	15	Upper Waingawa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	16	Upper Plains	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	17	South Masterton	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
EASTERN RIVERS	18	Kopuaranga	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	19	Whangaehu	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	20	Taueru	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	

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WAIPOUA	9	Waipoua Headwaters						✓	✓		✓								✓		✓	✓		✓	
	10	Upper Waipoua	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	11	Mikimiki	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	12	North Masterton	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	13	Masterton	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

Notes:

- Headwaters extend into toe slopes of Tararuas within which buffer strips aren't applied. Protection against deforestation and landslide monitoring are primarily tools used in this context.
- Protection against deforestation and landslide monitoring are not required throughout the remainder of the river.

	Notes
Economic	Buffer strips give greater certainty in relation to extent of private property protection. Stop banks widely employed along river for which equity across cost of works will provide ongoing challenge addressed in scheme decision making policy. Opportunities to deliver alternative economic benefit in buffer strips.
Resilient Communities	Operational, planning and emergency management responses provide flexibility to manage change. Important to raise awareness of flood risks to roads. Risk to abutments of rail bridge is addressed.
Cultural	River forms key part of urban area. Recognised need for ongoing collaboration with Maori to manage cultural sites and values.
Natural Spaces / Processes	Environmental enhancement responds to beneficial outcomes for natural spaces / processes. Buffer strips enable process of giving river room.
Community Needs	Community access focussed in Masterton town centre. Land owner contribution may also require a higher level of ongoing management commitment in some areas.

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WAINGAWA	14	Waingawa Headwaters						✓	✓			✓							✓		✓	✓		✓		
	15	Upper Waingawa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	16	Upper Plains	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
	17	South Masterton	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	

Notes:

- Headwaters in Ruamahanga Forest Park do not include buffer strips. Protection against deforestation and landslide monitoring are primarily tools used in this context. Environmental enhancement primarily managed by DoC.
- Upper Waingawa Reach does not currently include buffer strips, however these may be identified in the future as part of managing potential erosion.
- Protection against deforestation and landslide monitoring are not required throughout the remainder of the river.

	Notes
Economic	Inclusion of private land owners in upper reaches relates to costs / level of protection anticipated in reach. Buffer strips help give greater certainty in relation to extent of private property protection.
Resilient Communities	Risks to essential infrastructure including water supply, bridges and airfield managed as major project responses. Operational, planning and emergency management responses provide greater flexibility to manage change and seek to protect health and safety of community.
Cultural	Recognition that character of river is important to community, including recognition of importance as Masterton gateway. Recognised need for ongoing collaboration with Maori to manage cultural sites and address cultural values.
Natural Spaces / Processes	Buffer strips respond to giving river room. Environmental enhancement responds enable beneficial outcomes for natural spaces / processes including ongoing need for weed management.
Community Needs	Potential to improve access at Masterton Gateway and to confluence.

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EASTERN RIVERS	18 Kopuaranga	✓		✓			✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	19 Whangaehu	✓		✓			✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	20 Taueru	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

Notes:

- Eastern Rivers have substantial overlaps which can enable collective management.
- Riverbed envelope and pool run riffle envelope have potential application in lower reaches of Taueru River as this moves across the Wairarapa Plains.
- Historic channel lines have not been defined.
- Protection against deforestation and landslide monitoring do not impact on these rivers

	Notes
Economic	Management of willow provides majority of ongoing cost. Inclusion of buffer strips may help give greater certainty in relation to extent of private property protection in more erosion prone errors.
Resilient Communities	Emergency management responses provide a key contirbution to building resilience in communities in tandem with more active targetted planning and river management responses.
Cultural	Recognised need for ongoing collaboration with Maori to manage cultural sites and address cultural values.
Natural Spaces / Processes	The impact of willow clogging water ways provides a particular challenge which requires ongoing management. Environment enhancement responses have ability to promote environmental improvements including targeted mixed native vegetation planting.
Community Needs	Access and recreation use is more limited. Opportunities to respond to focused community aspirations.