

# Managing sediment in Te Awarua-o-Porirua Whaitua PART 2

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# Recap of sediment objectives

- Sedimentation rate objectives
- Muddiness objectives

# Sources of sediment

- Earthworks
- Forestry
- Erosion prone land – today's focus
- Stream bank erosion – today's focus

# Sediment loads

	WMU name	Total Load per WMU (t/yr)	kg/ha
Pauatahanui Arm	Horokiri and Motukaraka	960	289
	Kakaho Stream	250	200
	Ration	200	289
	Judgeford Stream	630	538
	Pauatahanui	3210	767
	Lower Duck Creek	530	513
	Upper Duck Creek	380	716
Onepoto Arm	Rangituhi Stream	30	356
	Takapu Stream	650	843
	Belmont Stream	270	582
	Stebbings Stream	110	451
	Kenepuru	820	649
	Upper Kenepuru	530	1957
	Porirua	2660	496
	Hukarito Stream	10	102
	Mahinawa Stream	40	158
	Whiteria	10	102
Open Coast	Hongoeka to Pukerua	10	74
	Taupo Stream	90	80
	Titahi	0	0

# Sediment sources

WMU name	Current state				Improved				Water Sensitive			
	Annual average sediment load (t/yr)	% load from different erosion processes			Annual average sediment load (t/yr)	% load from different erosion processes			Annual average sediment load (t/yr)	% load from different erosion processes		
		Hillslope	Landslide	Streambank		Hillslope	Landslide	Streambank		Hillslope	Landslide	Streambank
Pukerua	10	88%	9%	3%	6	89%	8%	3%	6	89%	8%	3%
Hongoeka to Pukerua	10	88%	9%	3%	6	89%	8%	3%	6	89%	8%	3%
Titahi	1	99%	0%	0%	1	99%	0%	0%	1	100%	0%	0%
Taupo Stream	90	55%	25%	19%	52	73%	0%	27%	44	81%	0%	19%
Horokiri and Motukaraka	960	31%	36%	33%	490	53%	20%	27%	465	55%	19%	26%
Kakaho Stream	250	43%	41%	16%	90	88%	2%	9%	86	89%	2%	9%
Ration Creek	200	91%	0%	9%	172	93%	0%	7%	170	93%	0%	7%
Judgeford Stream	630	76%	13%	11%	504	86%	6%	8%	489	86%	6%	8%
Pauatahanui Stream	3210	41%	6%	53%	2120	54%	3%	43%	1843	59%	3%	38%
Lower Duck Creek	530	69%	26%	6%	238	91%	0%	6%	227	93%	0%	6%
Upper Duck Creek	380	62%	35%	3%	154	94%	0%	1%	144	97%	0%	1%
Hukarito Stream	10	100%	0%	0%	10	100%	0%	0%	10	100%	0%	0%
Mahinawa Stream	40	92%	7%	1%	43	92%	7%	1%	42	92%	7%	1%
Whitireia	10	100%	0%	0%	11	100%	0%	0%	11	100%	0%	0%
Rangituhi Stream	30	98%	2%	0%	22	100%	0%	0%	22	100%	0%	0%
Takapu Stream	650	42%	56%	1%	255	95%	4%	1%	228	99%	0%	1%
Belmont Stream	270	76%	23%	0%	111	88%	11%	1%	114	89%	10%	0%
Stebbing's Stream	110	99%	0%	1%	58	100%	0%	0%	59	100%	0%	0%
Upper Kenepuru	530	22%	78%	0%	89	86%	13%	0%	89	86%	13%	0%
Kenepuru	820	48%	50%	2%	245	88%	5%	5%	239	89%	5%	4%
Porirua	2660	59%	32%	9%	1400	80%	3%	16%	1335	82%	3%	15%

# Erosion prone land

## Current policy direction

- GWRC earthworks and vegetation clearance permitted rules
- GWRC policies to minimise risk of accelerated soil erosion and control silt and sediment runoff
- WCC and PCC slope restrictions on permitted earthworks rules

# Erosion prone land recommendations (s4.5 Pg 28)

1. Greater Wellington uses existing land classifications (e.g. The NES-PF Erosion Susceptibility Classification or Land Use Classification (LUC)) to identify, at a broad scale, priority areas for reducing sediment. Once priority areas have been identified, work with affected land owners to develop farm management plans that address how sediment losses will be reduced at a farm/property scale. Should this recommendation apply across the whole whitua, or just in the 'top five' sediment producing WMU?
2. Greater Wellington undertakes work to refine identification and classification tools for erosion prone land. The tool is then used to identify priority areas for retirement in the Whitua within the next 10 years.
3. Greater Wellington aligns the planning, funding and support of sediment mitigation activities, including both riparian restoration and hill slope erosion with the identified priority areas.
4. Greater Wellington improves resources in the whitua to provide land management advice to rural land owners.
5. Greater Wellington prioritises opportunities to retire grazing lands in their regional parks in the whitua.

# Stream bank erosion

## **Current policy direction**

- Stock access to the bed of streams is a permitted activity within the Whaitua
- Riparian planting programmes supported by GWRC

## Stream bank erosion recommendation (s4.5 Pg 28)

1. Greater Wellington explores options for bank protection works with the intention of making the consent process easier where the works are undertaken to actively reduce stream bank erosion.

## Stream stock exclusion recommendation (s4.5 Pg 29)

1. Greater Wellington develops a new rule that ensures stock are excluded from waterbodies where the surrounding land has a slope of less than 15 degrees. i.e. fencing or planting may be unsuitable/unfeasible on steeper land.