

Regional Council	PROBLEM/OPPORTUNITY DESCRIPTION	MPI funding 2015-2019																								
Horizons	<p>The Sustainable Land Use Initiative (SLUI) is in its third application round for government funding. A comprehensive document was prepared under the initial application in 2007 where issues such as scale, ability of the region to pay etc were widely canvassed. While significant progress has been made the scale of the challenge remains the same.</p> <p>The Manawatu-Wanganui Region has the largest area of hill-country of any region in New Zealand with 1,500,000 ha or 68 % of the Region's total 2,200,000 ha in hill-country. Much of this hill-country is underlain by mud, silt or sandstones that are naturally prone to slipping, slumping and other forms of erosion. In total 450,000 ha of the region has the potential for severe erosion. Due to vegetation clearance, the hill country has experienced accelerated erosion over the past 100 years. The rate of erosion varies greatly with slope, storm intensity and vegetation cover, with the worst erosion rates recorded in areas of highest storm intensity, steepest slopes and areas with little or no woody vegetation.</p> <p>In 2006 Landcare Research NZ Ltd. was commissioned by HRC to examine Highly Erodible Land (HEL) in the Region. For this research study HEL was defined as "hill country with a potential for severe erosion or hill country with a potential for moderate erosion but where erosion debris will enter directly into waterways". This definition was used as hill country land of this type contributes significantly to the sediment in the major catchments of the region. The research was based on an analysis of LUC 6, 7 and 8 erosion types with a slope over 24 degree using satellite imagery, keeping in mind the above definition. This research discovered that there are approximately 273,000 ha of unprotected HEL in the region that requires priority treatment. Table 2 below summarises the research findings by major catchment and type of HEL.</p> <table data-bbox="329 655 1214 959"> <tr> <th>Table 2 HEL within the Region Catchment</th><th>Catchment area (ha)</th><th>Total HEL area (ha)</th></tr> <tr> <td>Whanganui</td><td>712,185</td><td>95,000</td></tr> <tr> <td>Whangaeahu</td><td>196,561</td><td>42,000</td></tr> <tr> <td>Turakina</td><td>96,606</td><td>26,808</td></tr> <tr> <td>Rangitikei</td><td>397,931</td><td>34,633</td></tr> <tr> <td>Manawatu</td><td>596,861</td><td>39,356</td></tr> <tr> <td>Other Catchments</td><td>220,746</td><td>35,730</td></tr> <tr> <td>Total Region</td><td>2,220,890</td><td>273,527</td></tr> </table>	Table 2 HEL within the Region Catchment	Catchment area (ha)	Total HEL area (ha)	Whanganui	712,185	95,000	Whangaeahu	196,561	42,000	Turakina	96,606	26,808	Rangitikei	397,931	34,633	Manawatu	596,861	39,356	Other Catchments	220,746	35,730	Total Region	2,220,890	273,527	\$4,760,000
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Taranaki	<p>Most of the land susceptible to erosion lies in the hill country (411,115 hectares). Rainfall of between 150 and 200 ml is typically received over a short period, which exacerbates the risk of accelerated erosion - particularly if soils are already saturated. The land most at risk from accelerated erosion in the hill country is predominantly on slopes >20 degrees and in pasture. There are 83,474 hectares of land in the hill country with a moderate to severe erosion potential. This land requires a range of soil conservation measures including: retirement of marginal land, soil conservation trees and block planting to reduce sediment generation. The Council's main Sustainable Land Management Programme (SLMP) was introduced in 1996 to address accelerated erosion in the hill country. Since Council's formation, it has continued with the farm planning approach which has resulted in 401 farm plans and agroforestry plans in place for 66% of the 306,000 hectares of privately owned land in the hill country under its SLMP.</p> <table data-bbox="329 1225 1370 1457"> <tr> <th>Area</th><th>Area of hill country or catchment (ha)</th><th>Total hectares of highly erodible land (NZEEM)</th></tr> <tr> <td>Hill country</td><td>411,115</td><td>83,474</td></tr> <tr> <td>Waitotara</td><td>119,570</td><td>13,911</td></tr> <tr> <td>Waitara</td><td>114,554</td><td>13,683</td></tr> <tr> <td>Patea</td><td>103,197</td><td>11,315</td></tr> </table> <p>Table 1 TRC calculated catchment areas using GIS and areas with an erosion risk by NZEEM.</p>	Area	Area of hill country or catchment (ha)	Total hectares of highly erodible land (NZEEM)	Hill country	411,115	83,474	Waitotara	119,570	13,911	Waitara	114,554	13,683	Patea	103,197	11,315	\$1,210,000									
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	<p>Table 1 shows that the 3 largest catchments in the region cover 87% of the hill country in private ownership and that 70% of the most at risk land in these catchments has a farm plan in place. This will accelerate the targeted delivery of STRESS over the next 4 years. After 4 years of STRESS focusing on the Waitotara Catchment, 82% of the most at risk land is now covered with a plan compared to 62% before STRESS. This highlights Council's whole of catchment approach. Tables 2 and 3 show the area of land with high erosion risk and erosion rates respectively.</p>																						
Greater Wellington Regional Council	<p>Since 2009 Greater Wellington and MPI have been working together in partnership under the WRECI Programme to increase the amount of erosion control work undertaken in 5 key catchments within the Wairarapa Hill country.</p> <p>This round of funding is an opportunity to learn from the first five years of the WRECI programme, and to adjust the programme to achieve better outcomes, in particular a greater amount of on-ground erosion control works than the first five years of WRECI. Seventy five percent of farmers in the WRECI programme planted more poles per year during the WRECI programme than they had for the five years prior to joining. (for more detail see Evaluation of WRECI programme 2014)</p> <p>The five priority areas in the WRECI programme cover some or all of all the major catchments in the Wairarapa hill country.</p> <table border="1"> <thead> <tr> <th>Catchment name</th><th>Catchment area (ha)</th><th>Estimated high priority erodible land (ha) with no veg cover</th></tr> </thead> <tbody> <tr> <td>Ruamahanga</td><td>356,000</td><td>18,200</td></tr> <tr> <td>Pahaoa</td><td>65,000</td><td>7,500</td></tr> <tr> <td>Whareama</td><td>53,200</td><td>12,400</td></tr> <tr> <td>Awhea/Opouawe</td><td>25,800</td><td>4,400</td></tr> <tr> <td>Coastal</td><td>103,000</td><td>21,000</td></tr> <tr> <td>All Areas</td><td>630,000</td><td>63,500</td></tr> </tbody> </table>	Catchment name	Catchment area (ha)	Estimated high priority erodible land (ha) with no veg cover	Ruamahanga	356,000	18,200	Pahaoa	65,000	7,500	Whareama	53,200	12,400	Awhea/Opouawe	25,800	4,400	Coastal	103,000	21,000	All Areas	630,000	63,500	\$1,151,000
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Northland	<p>The Kaipara Harbour is experiencing a decline in ecosystem health caused in part by high sediment loads originating from its catchment within the Northland region. Previous experience highlights particular targets for addressing accelerated soil erosion in Kaipara including gullyng in acid sulphate rocks, crushed muddy limestone and sandstone complexes, Waitotira soils and the slip planes in greywacke underlying Marua and Rangiora soils. The initial phase of this project will refine the hill country target areas and initiate field surveys and collaboration in critical source areas.</p> <table border="1"> <thead> <tr> <th>Catchment name</th><th>Catchment area (ha)</th><th>Estimated high priority erodible land (ha) with no veg cover</th></tr> </thead> <tbody> <tr> <td>Kaipara</td><td>474,293</td><td>82,491</td></tr> </tbody> </table>	Catchment name	Catchment area (ha)	Estimated high priority erodible land (ha) with no veg cover	Kaipara	474,293	82,491	\$666,000															
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Waikato	<p>The Waikato Regional Council (WRC) is seeking funding for the implementation of a comprehensive soil conservation and sustainable land management programme within the hill country of the Waikato Region. The programme will focus on the Waikato's western hill country which;</p> <ul style="list-style-type: none"> • Contains the highest proportion of pastoral land at risk of erosion (based on NZEEM analysis) in the region and; • Where there are established relationships with landowners and support from the community to implement and maintain soil conservation initiatives. <p>Overtime, it is anticipated that the programme will be expanded to support additional soil conservation programmes in the region such as in priority catchments in the Lower Waikato.</p> <table border="1"> <thead> <tr> <th>Catchment Name</th><th>Area of hill country or catchment (ha)</th><th>Total highly</th></tr> </thead> <tbody> </tbody> </table>	Catchment Name	Area of hill country or catchment (ha)	Total highly	\$630,000																		
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Hawke’s Bay	<p>The Whangawehi Catchment Management Group began in 2011 and was initiated during the consultation process leading up to the construction of a waste water treatment plant in the catchment. As a catchment group they are significant in their level of commitment and have been recognised by a Green Ribbon Award, Trustpower Community Connect award, and a Pride of NZ Award in the lower catchment. The funding enables HBRC to continue to progress on-ground works that relate to the loss of soil from hill country, while investing non-HCE funds into related priorities (such as water quality) and thereby providing a more holistic approach to addressing the catchment challenges.</p> <p>Erosion risk in the HCE Project Whakaki and Whangawehi Catchments</p> <table><tr><td>Catchment name</td><td>Area (ha)</td></tr><tr><td>Whakaki</td><td>8781 ha</td></tr><tr><td>Whangawehi</td><td>3575 ha</td></tr></table>	Catchment name	Area (ha)	Whakaki	8781 ha	Whangawehi	3575 ha	\$358,000																		
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