

WTL - BC 2: Erosion Control in Smaller Streams [Spring and Rocky Creeks] in the Upper Barron Catchment

Install off-stream water treatment systems on Spring and Rocky Creeks to reduce the water velocity and volume downstream, lower the erosive impact of the water and improve water quality further downstream.

This strategy delivers on these Regional Themes	Biodiversity	Biosecurity	Coastal Systems	Sustainable Industries	Water
	✓				✓
This strategy delivers on these Strategic Outcomes	Supportive, policies, plans and regulations	Collaborative, adaptive planning and action	Traditional Owner Benefits	Sustained and diverse resourcing	Community stewardship, values and action
		✓	✓		
Outcome	<p>Installing water treatment systems on the basalt country within the Spring and Rocky Creek systems will achieve multiple outcomes, including:</p> <ul style="list-style-type: none"> ▪ Reduced erosion of riparian areas from high volume rainfall events. ▪ Improved water quality in freshwater river systems through reduced sediment, pesticide and herbicide loads. ▪ Improved adaptability and resilience of our region's waterways to impacts of climate change. ▪ Improved aquatic habitats. ▪ Improved aesthetics of the drainage systems at Rocky Creek. ▪ Enhanced social and community benefits through involvement in on-ground activities, resulting in strong community stewardship and ownership of projects. 				
Justification	<p>The drainage in these 2 sub-catchments has been highly modified through development of conservation drains [designed to drain water of the agricultural land] and drainage for the major highway and railway line, resulting in instability and erosion issues further downstream where the water has been channelled. Previous detention work in the upper reaches of Spring Creek has reduced the velocity of the water, resulting in less sediment and nutrient in the system, and this methodology can be applied in other areas to improve the whole system. The erosion hot spots have been clearly identified, with community engagement and support for activities to improve these areas. Improvements to these erosion hotspots will improve water quality and have high environmental and social benefits.</p>				
Key steps	<ol style="list-style-type: none"> 1. In collaboration with all relevant stakeholders, including landholders, research organisations, industry, Traditional Owners and government, develop an action plan based on priority issues, in each sub-catchment. 2. Identify opportunities for funding and implementation, including cash and other contributions and develop a delivery mechanism relevant to the area and issue, which maximises landholder and community involvement and fosters long term stewardship. 3. Implement on ground actions and monitor environmental and water quality outcomes. 				
Feasibility considerations	<ul style="list-style-type: none"> ✓ Areas of high erosion have already been identified. ✓ Spring Creek has an initial pilot study completed with recommendations for action. ✓ Previous work has been completed in Spring Creek. ✓ Community Group and Traditional Owner Group active in both sub-catchments. ✗ Some areas are highly eroded to bedrock, therefore to fix them would be very expensive. ✗ Erosion control work can be complex and expensive. ✗ Finding a suitable site for off-stream detention may be difficult. 				