

WTL-RC 2: Rehabilitation of Babinda Swamp Drainage System

Using a range of techniques, including farm practice change and treatment systems, rehabilitate the Babinda Swamp Drainage System to reduce sediment and nutrient loads and minimise the risk of breakouts of the creek systems into the drainage network.

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	Rehabilitating the Babinda Swamp Drainage System will result in significant benefits, including: <ul style="list-style-type: none"> ▪ Improved water quality in freshwater and coastal and reef systems, through reducing nutrient and sediment loss from agricultural production. ▪ Reduced time and financial inputs from managing drainage systems with high sediment loads eg. drain maintenance. ▪ Reduced risk of breakouts of natural creeks and rivers into the drainage network. ▪ Reduced loss of valuable topsoil from agricultural land. 				
Justification	The Babinda Swamp management unit is highly disturbed with a majority of the land heavily drained and currently under agricultural production. There are significant issues with nutrient and sediment runoff and the potential for breakouts of Babinda Creek and the Russell River into the drainage network. There are, however, already some successful treatment options in place within this system; this methodology can be applied in other areas to improve the chances of successful remediation. The impact on landholders of a serious breakout into the drainage network would be high, providing a good incentive for remediation actions. The health of the waterways in this region, particularly their nutrient and sediment loads, have a significant impact on reef health.				
Key steps	<ol style="list-style-type: none"> 1) Continue to support Best Management Practice adoption in sugar cane, bananas and cattle. 2) Expand the treatment system within the Babinda Swamp drainage system, using the successful methodology applied in other areas of the system. 3) Undertake sediment trapping within Niringa Creek to reduce loads entering the drainage network. 4) Conduct maintenance on existing farm drains to improve their function eg. reshaping, removing sediment, planting sedges. 5) Investigate, and implement where appropriate, alternative options for treating runoff, including bioreactors. 				
Feasibility considerations	<ul style="list-style-type: none"> ✓ There has already been one large wetland constructed within this system; the successful methodology could be replicated in other areas. ✓ There are many supportive landholders and some are already implementing or working towards BMP. ✓ There is already some water quality monitoring taking place, which can be built on to help assess effectiveness of remediation works. ✗ The area is highly disturbed and remediation options are likely to be expensive. 				