



Changing the flow at Broadmeadows

Protecting the Nankin Wetlands

Broadmeadows is a beef grazing property owned and operated by the Lang Family, located 13kms east of Rockhampton, on the banks of Nankin Creek. The Nankin Wetlands lagoon cover a significant area of the property. As such, it is the property owners desire to keep this area free from invasive weeds, sedimentary silt and salt scalding, with the aim of maintaining a sound environmental state whilst ensuring optimal water quality standards are met.

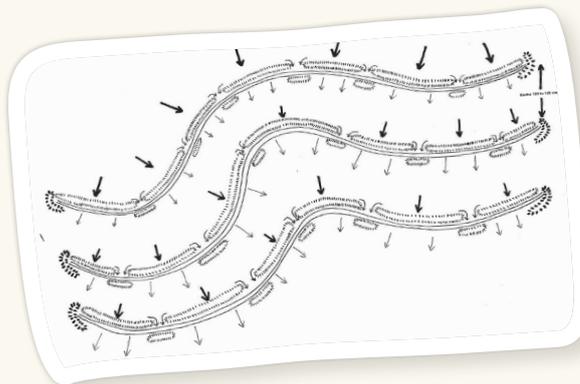
BROADMEADOWS

The property extends over 984 hectares, consisting of marine plain with grass sedge wetland country, fed by deep permanent creek water. Waterways are recharged by overland flows created by rainfall from the adjacent Berserker Range, flowing through the paddocks and towards the main lagoon. Broadmeadows currently runs approximately 700 head of Charolais cattle. The stocking rate is appropriately aligned to the carrying capacity of the property with ample water and feed to sustain current herd numbers. Owners Robert and Michelle Lang continue to improve practices at Broadmeadows and investigate opportunities to increase carrying capacity. Core to this objective is the improvement of pastures, soil health and spreading overland water to prevent erosion of valuable hillside slopes.

EROSION CONTROL BY SPREADING WATER

Capricornia Catchments Inc. liaised with soil conservation specialists for recommendations on how to improve ground cover, manage salt scalding and mitigate soil erosion. After careful consideration of topography of the paddocks and available options, a proposal to spread the water higher across areas with better groundcover was considered the best option. Establishing water spreading banks in two sections of the property, with passive outflows to the wetlands would have the best outcome. Seven water-spreading banks have been erected as a result of on-ground activities.

Each earthen bank is approximately 600mm high and spans around 150-200 metres. The key advantage is the energy of the water flow is redirected and reduced. Consequently, the spreading of water delivers increased water infiltration into areas that are specifically affected by scalding and gully erosion. Water-spreading is a land rehabilitation technique, well suited to the variability of rainfall and run-off experienced at Broadmeadows. The Lang's have applied the technique previously



on another part of the property with evidence of success. The advantage water-spreading provides is the trapping and conservation of quality top soil sediments, directly improving pasture quality and ground cover, in turn increasing carrying capacity. Additional fences have been installed to restrict livestock movement from any areas undergoing a rehabilitation phase and to improve grazing management. Sediments that would have previously ended up in the wetland lagoon, threatening to cause shallowing, are now remaining on the sloping plains.





REFLECTION AND OUTCOMES

Following a rain event in May that resulted in 55mm of added rainfall to the region, the Lang's reported -

"We are very pleased with the results so far. The water-spreading banks are working just as expected."

You only have to look at the condition of the Charolais cattle basking in the sun and grazing on the green pastures near the lagoon to realise the importance of keeping the natural balance in the landscape.

The numerous varieties of birdlife such as Jacanas, the rare Cotton Pygmy Geese and Darters that call the Nankin Wetlands home as indicators that the measures taken so far are working. With the new water-spreading banks, it is anticipated that even greater long-term improvements to the wetlands will be achieved. The Lang's believe the banks will play a key role in improving the sustainability of the wetlands, local ecology and grazing potential.

The project brings together the collective efforts of natural resource management and the good stewardship ideals of the property owners.

PARTNERS AND INVESTMENT

Project on-ground activities included the establishment of the water-spreading banks, fencing infrastructure and support to address weeds. This project also provided for the construction of a fishway in the Nankin Creek that traverses the Lang's property.

These initiatives were supported and funded in part by the Queensland Government with a 50% in-kind contribution by the Lang Family for property activities. In recent years, other self-funded remedial work by the Lang's has been undertaken on a smaller scale with success.

Under this QNRM Wetlands project initiative, Capricornia Catchments Inc. and Fitzroy Basin Association Inc. (FBA) have been able to provide alternative solutions and bring together a variety of specialist service providers. This partnership has been able to help deliver a range of outcomes, helping to maintain the health of the Nankin Wetlands, whilst also improving productivity and sustainability of the Broadmeadows grazing operation.

