Modifications of kanamaluka/Tamar

Natural processes and human modifications

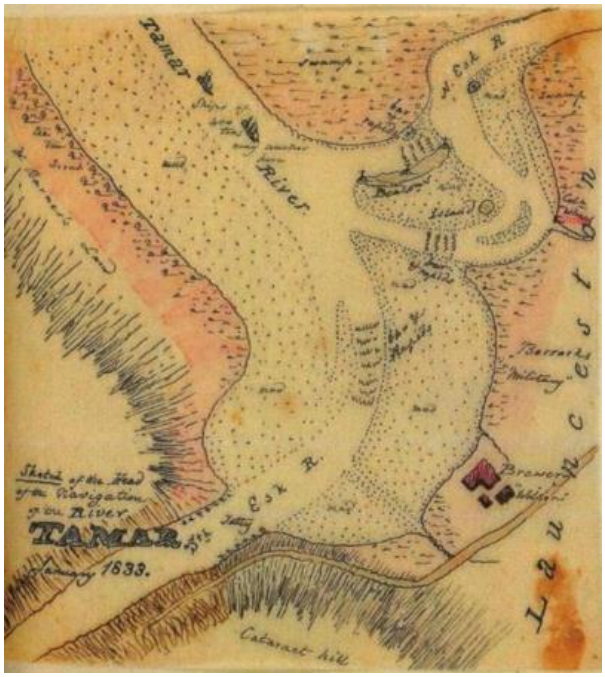
The residents of Launceston have long had a complicated relationship with the mudflats of the upper estuary. Myths and misconceptions abound, and we've made a number of attempts to manage the sediments – from dredging and raking to even trying to straighten it out!

Early settlement & dredging

At the time of European settlement in the early 1800s, the upper kanamaluka/Tamar estuary and the North Esk River featured extensive mudflats and wetlands. Until the late 19th century, vessels mostly sailed with the high tides, with some dredging in the North Esk River between the Charles St and Victoria bridges.

As vessels increased in size into the early 20th century, more dredging was required to provide enough depth for bigger ships. The upper estuary was then a deep-water port, as huge volumes of sediment were dredged. From the 1950s onwards, shipping was increasingly containerised, bringing with it a change from inland ports to deep water ports at the coast. The port of Launceston moved to Bell Bay in the late 1960s, and with that relocation the need for expensive dredging effectively ceased. Since then, the mudflats have been reforming as the estuary returns to a more natural state.

Between 1919 and 1920, two attempts were made to straighten a bend in the estuary at 'Hunter's Cut'. The goal was to dredge a 4 m deep channel at low tide to allow sediment to drain more freely from the upper estuary. However, the project was abandoned due to the prohibitive cost and because, like a hole in sand at the beach, every time the cut was dredged, it simply filled back in again.



A navigation map from 1833 shows mud flats similar to today.

Satellite imagery shows Hunter's Cut, a failed attempt to straighten the estuary.

More recent modifications

Recent decades have seen small scale dredging programs, and between 2013 and 2019, the city used sediment raking in an attempt to reduce sedimentation – a modified scallop dredge towed behind a boat, to stir up sediment and move it downstream with the outgoing tide and flows from the Esk rivers. However, a review of the program found that while the raking did move sediment from the mudflats and marinas, most of the sediment resettled in the navigation channels within the upper estuary.

The kanamaluka/Tamar estuary navigation channels are now shallower than before the raking began, making it harder for boats, yachts and rowers to get through at low tide. In fact, before the huge floods in June 2016, we had more sediment in the upper estuary than before the raking program began.

Love the mudflats

Since the end of high-intensity dredging programs, the mudflats have been reforming as the estuary returns to a more natural and stable state.

Some people think that the sediment is ugly, or that the sediments come from sewage from the city's combined sewerage and stormwater system, but this is not the case.

Mudflats are really important habitat for birds, fish and crabs and, if left to stabilise, can be colonised by estuarine vegetation, invertebrates and other fauna. The middle and lower kanamaluka/Tamar estuary provide many examples of mudflats teeming with estuarine life: thousands of crabs scuttling about filter-feeding on the rich muddy sediments, hundreds of birds of different species feasting on invertebrates and other creatures in the sediments, as well as fish drawn to an abundance of food.

The kanamaluka/Tamar estuary has much to offer those who make their homes on its banks or within its waters. The challenge lies in how to manage the upper estuary for all those who make use of it: the rowers, the yachties, the tourists, the birds and the residents of the city, whilst also making sure that flood waters can drain without putting the city at risk. The success of future management options for the estuary will require us to work with nature, not against it, and learn to love the mudflats.

The TEER Program gratefully acknowledges City of Launceston for the adaption of their material for this fact sheet. Photo Credit: Steve Harvey.

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