

Modifications of kanamaluka / Tamar

Natural processes and human modifications

The residents of Launceston have had a long and complicated relationship with the upper kanamaluka / Tamar estuary. Myths and misconceptions abound regarding the area's natural state, with several attempts made to manage the waterway – from dredging and raking to trying to straighten it out.

EARLY SETTLEMENT

At the time of European settlement in the early 1800's, the upper kanamaluka / Tamar estuary and the North Esk River featured extensive mudflats and wetlands. Since then, infilling of these wetlands and construction of informal levees to reduce tidal inundation has been a common practice within the kanamaluka / Tamar estuary catchment. In fact, the entire suburb of Invermay was built atop an in-filled wetland.

Just as wetlands have been modified, so too has the estuary channel. 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 to deepen these areas. However, 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.

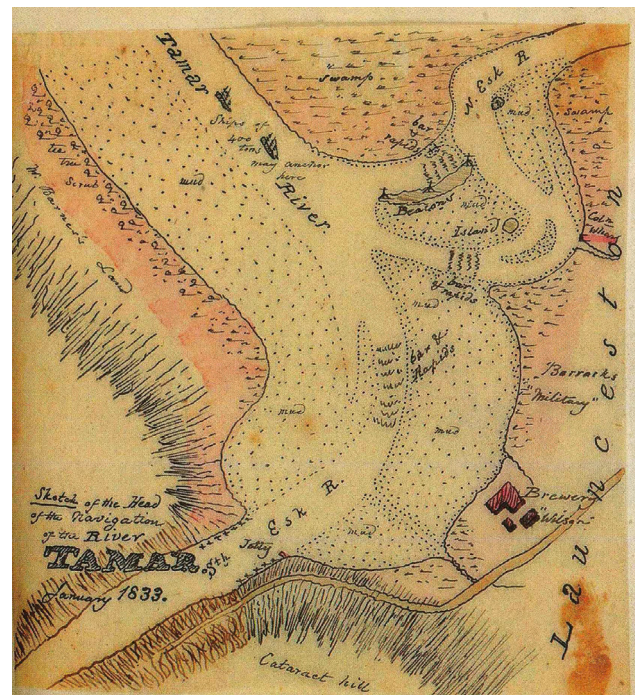


Above: satellite imagery shows Hunter's Cut, a failed attempt to straighten the estuary.

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.

From the 1950's 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 1960's, and with that relocation the need for expensive dredging effectively ceased. Since then, mudflats have been reforming along the estuary shoreline as it returns to a more natural state.



Above: a navigation map from 1833 shows mud flats similar to today.

MORE RECENT MODIFICATIONS

Recent decades have seen small scale dredging programs, and between 2013 and 2019, the city attempted to reduce sedimentation using a technique called sediment raking 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 more shallow 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. For more information, refer to the 'Sedimentation management in the kanamaluka / Tamar estuary', available from tamarestuary.com.au

MUDFLATS ARE THE NATURAL STATE

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 the sediment is ugly or comes from the city's combined sewerage and stormwater system, but this is not the case.

Mudflats are an 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 provides 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, boat users, tourists, bird watchers and residents of the city, while maintaining the ecosystem and habitats essential to estuarine flora and fauna. The success of future management options for the estuary will require us to work with nature, not against it, and learn to appreciate the vital role played by all habitat types – including mudflats.



Above: mudflats play an important role in the lives of many species. Sharp-tailed Sandpipers (*Calidris acuminata*), photographed by Helen Cunningham.

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