

Shoreline Changes at Pelekane Continue

Decadal changes at Pelekane Bay due to changes in land use are well documented (Tissot, 1998), but South Kohala's Coastal Naturalists have witnessed a dramatic, and seemingly cyclical shift, in just the last few months.

Last August, a brush fire and subsequent flash flooding in Pohaukole Gulch created a previously unseen tidal flat stretching 150m seaward and littered with uprooted kiawe trees. Although, the sediment undoubtedly impacted Pelekane's fringing coral reef, there appeared to be silver lining. A previously stagnant and eutrophic marsh at the mouth of the Pohaukole was flushed out and opened to a steady exchange of seawater. In the months that followed this new estuary became rich with life including papio, mud crabs and large active schools of juvenile mullet. Several auku'u herons have taken to fishing this new nursery habitat and rarely go unseen.

Most recently however, the mouth of the estuary has been shrinking, inching closer to a return to its previous state. As time passes, sand from the tidal flat has slowly returned to the beach. If the process continues at the current rate, the estuary will again be a stagnant marsh within a year, meeting its unfortunate but natural end... until of course, the next flash flood occurs.



A growing sandbar at the mouth of the new estuary threatens to return Pelekane to its previous state.



August 2015. Post flood, the estuary has broad access to the sea.



May 2016. The mouth of the estuary is nearly closed.



Pelekane, circa 1998. The beach at Pelekane connects with the harbor. Photo credit: Tissot



Pelekane circa 2009. Tidal flow to the estuary is maintained. Photo credit Donald B. MacGowan.



Pelekane, circa 2010. Tidal flat and open flowing estuary suggesting cyclical estuary formation.
Photo credit Sharm Warner.