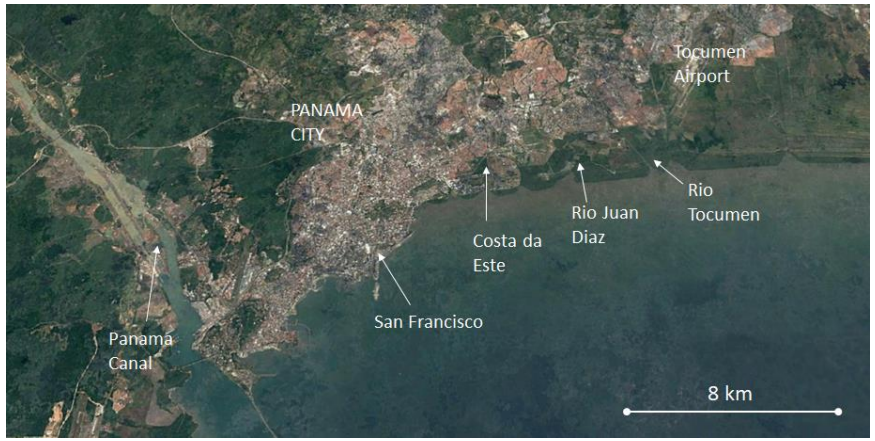
Panamá City NBS Opportunities

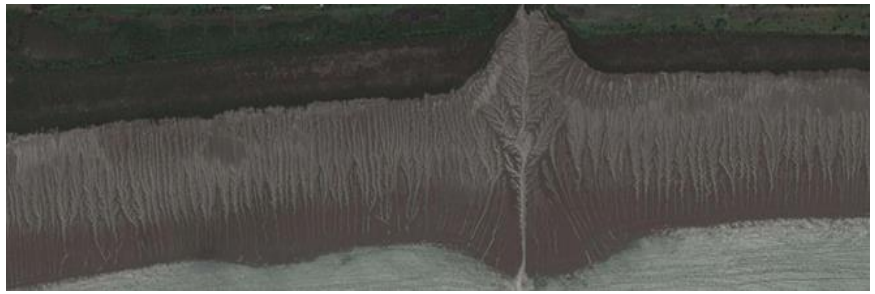
Damara WA Pty Ltd

Seashore Engineering

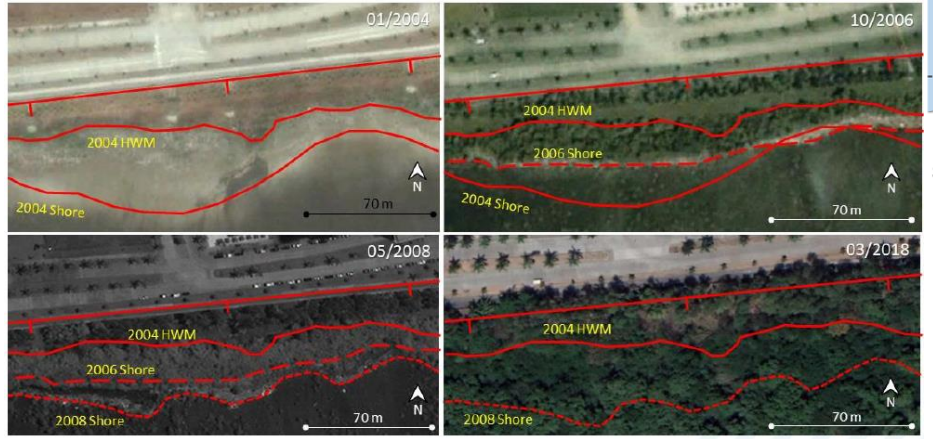
Eastward expansion of Panamá City occupies flood-plain, with substantial uncontrolled infill of coastal wetlands. Opportunities to incorporate nature-based flood reduction have been explored, to support future planning.



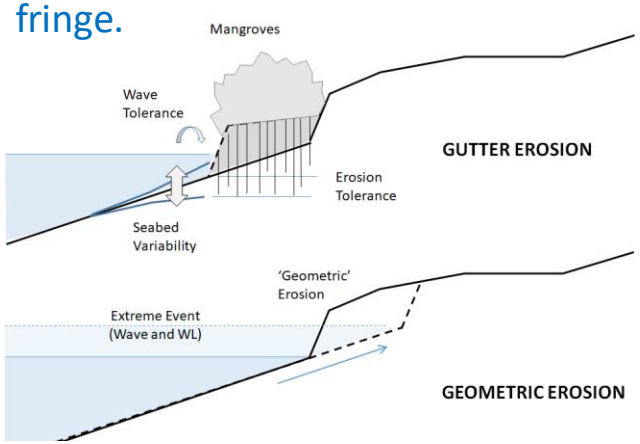
Panamá City has a macrotidal setting, with a tidal range of about 7m, which dominates coastal processes of the region. Sediments released from the river systems are dispersed across wide intertidal flats, including tidal flow within highly persistent channels.

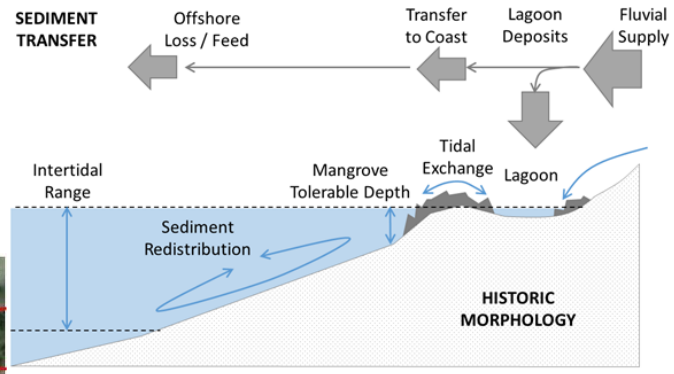


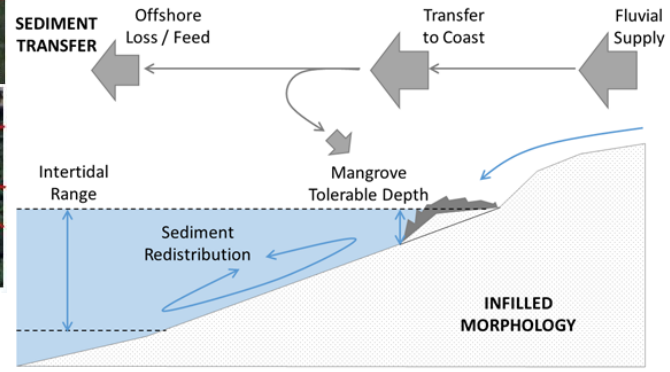
After major foreshore works in the 1970s, landward sediment transfer supported development of a narrow mangrove fringe, with a single species. This reduces wave runup and improves coastal stability by transferring erosion pressure downwards.



Development of a heterogeneous mangrove community will increase protection given by the mangrove fringe.







Further NBS opportunities provided through mangrove enhancement include increased stability of channels, greater trapping of fluvial sediment and larger flood storage, reducing flood impact.