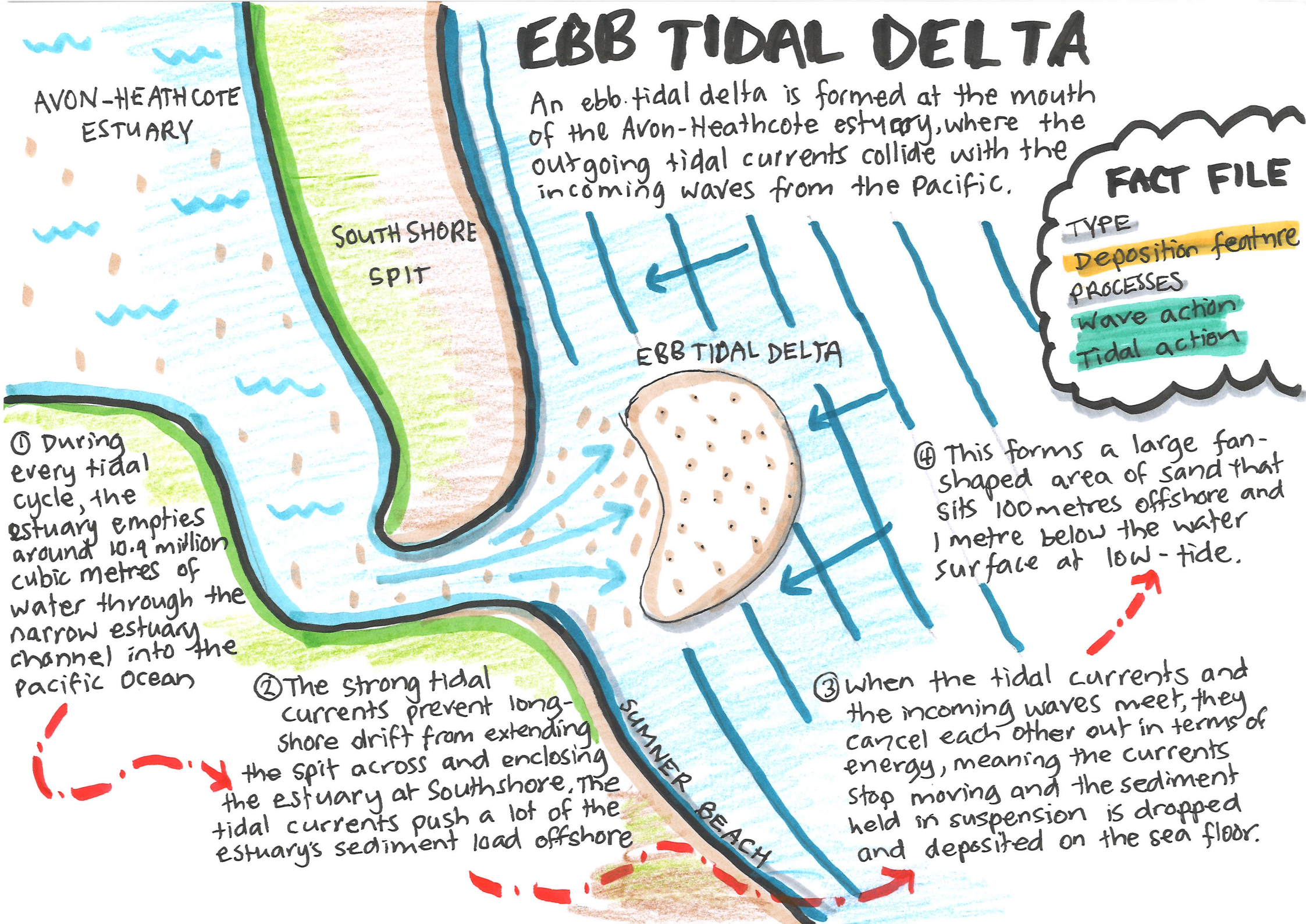
EBB TIDAL DELTA

An ebb tidal delta is formed at the mouth of the Avon-Heathcote estuary, where the outgoing tidal currents collide with the incoming waves from the Pacific.



FACT FILE

TYPE
Deposition feature
PROCESSES
Wave action
Tidal action

① During every tidal cycle, the estuary empties around 10.9 million cubic metres of water through the narrow estuary channel into the Pacific Ocean

② The strong tidal currents prevent long-shore drift from extending the spit across and enclosing the estuary at Southshore. The tidal currents push a lot of the estuary's sediment load offshore

③ When the tidal currents and the incoming waves meet, they cancel each other out in terms of energy, meaning the currents stop moving and the sediment held in suspension is dropped and deposited on the sea floor.

④ This forms a large fan-shaped area of sand that sits 100 metres offshore and 1 metre below the water surface at low-tide.