

# Southwest Estuaries Foreshore Assessment

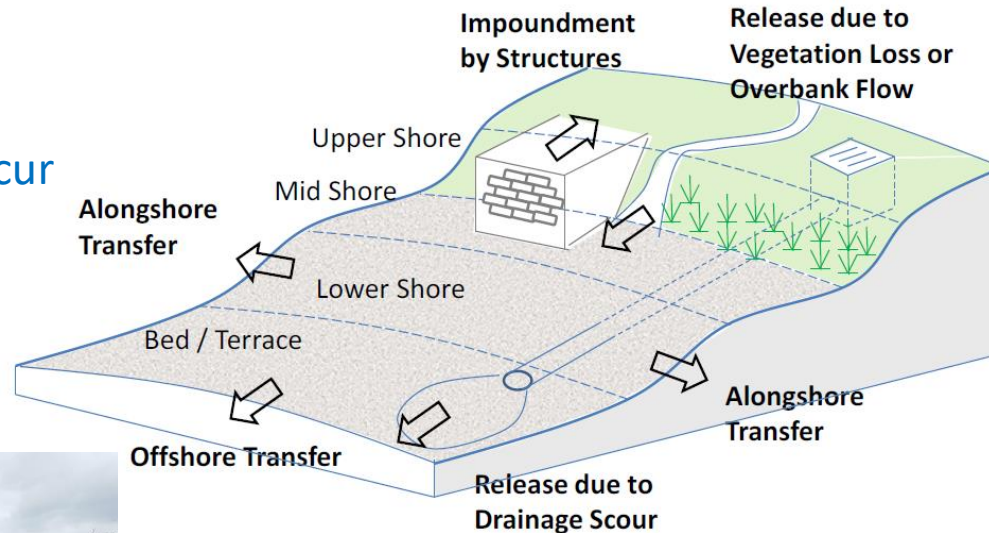


Almost all estuaries in southwest Western Australia are highly sheltered, with low tidal range, low river input and fetch-limited wave conditions. In this setting, foreshore dynamics can be responsive to multiple processes and may be sensitive to small changes.

Behaviour may include:

- Large differences in forcing can occur across small spatial scales
- Transitions occur between wave & current-driven sediment dynamics

- Interactions & breaks occur between the foreshore, terraces & estuary bed, which can support large cross-shore bed features
- Benthic & riparian vegetation are influential



Geomorphic frameworks supporting assessment of estuarine foreshore dynamics, include:

1. Foreshore sub-unit approach, based on wave fetch, developed for the Swan River
2. Landform element approach, based on landform units and their connectivity, used in Peel-Harvey. Sediment exchange within and between these units determines an overall response to drivers.

- There is potential for discrete and episodic sediment supply. Consequently, rather than *a priori* assumption of driving processes, it is appropriate to focus on observations of change.

