



Ridley River WA12.01.01

Regional Setting

The dominant regional processes are the sub-tropical arid climate (Trade winds), El Nino Southern Oscillation (driving sea-level variability), mega to meso semi-diurnal tides, waves dominantly seas, episodic high river sediment discharges, mixed carbonate-terrigenous sediments, and tidal sediment transport.

This coastline is susceptible to regional hazards, including tropical cyclones, storm surges and river flooding.

This coastal lowlands compartment extends from Beebingara Creek coast (E) to Yan Well coast.

Justification of sensitivity

The sensitivity rating is a 5 as the shoreline is eroding and likely to continue eroding. The shore is markedly dissected in the southern half of the embayment where tidal creeks break continuity of the shoreline and have inundated a backshore basin (rating 5). In the northern half, a sandy shoreline abuts an unbroken chain of chenier ridges. The NNW facing shore near Yan Well supports fringing mangrove vegetation commonly on rock platforms (rating 4).

Other comments

Common landform assemblages:

Landforms in the compartment indicate a transition from a tidal creek dominated coast to the deltaic plain of the De Grey River. Broad, smooth, gently sloping sandy beach with an extensive intertidal zone has formed between or in association with resistant headlands (73%). Tidal flat development is variable, with some sandy



and/or fine grained beach material, and is controlled by protection from offshore and onshore reef systems. The tidal flats may back onto low cliffs and sand ridges (26%).

Geomorphological features include an extensive sand spit, sand flats, lithified cheniers, and tidal mud flats.

This compartment has a NW aspect.

Confidence in sources

Low confidence: Limited or no information describing landforms or coastal landform change is available for the historical period.

Interpretation of landform assemblages from satellite imagery, aerial photography, available literature, and site visits to Balla Balla Creek and offshore islands.

Additional information (links and references)

Australian Beach Safety & Management Program (ABSAMP) database of over 12,000 beaches can be accessed at http://www.ozcoasts.gov.au/coastal/beach_intro.jsp (also see Surf Life Saving site)

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