

# TWEED SAND BYPASSING

## DURANBAH BEACH



Duranbah Beach - 1910



Duranbah Beach - pre 1960s



Duranbah Beach - 1956

- Duranbah is the most northerly beach in New South Wales (NSW), adjoining the NSW and Queensland border.

- Beach and Surf conditions at Duranbah have been subject to the influence of coastal works for more than half a century.

- Until the early 1960s, Duranbah was a relatively narrow beach with little sand dune system. Its foreshore was protected by a rock seawall.

- When the Tweed River entrance training walls were extended in the early 1960s, there was an initial reduction in sand delivery to Duranbah as the training walls altered the natural sand supply.

- As time went on, Duranbah grew in width. This was due to the Tweed River entrance training walls creating a sheltering effect, allowing sand to build a wider beach and dune compared to its earlier state.

- The regrowth of the entrance bar allowed sand to move naturally across the entrance into Duranbah Beach. This created sandbank conditions and wave patterns conducive to quality surf breaks. Duranbah became a nationally and internationally recognised surfing destination.

- Tweed Sand Bypassing commenced pumping operations in 2001, and since that time Duranbah Beach has continued to deliver consistent and high quality sandbanks for surfing.



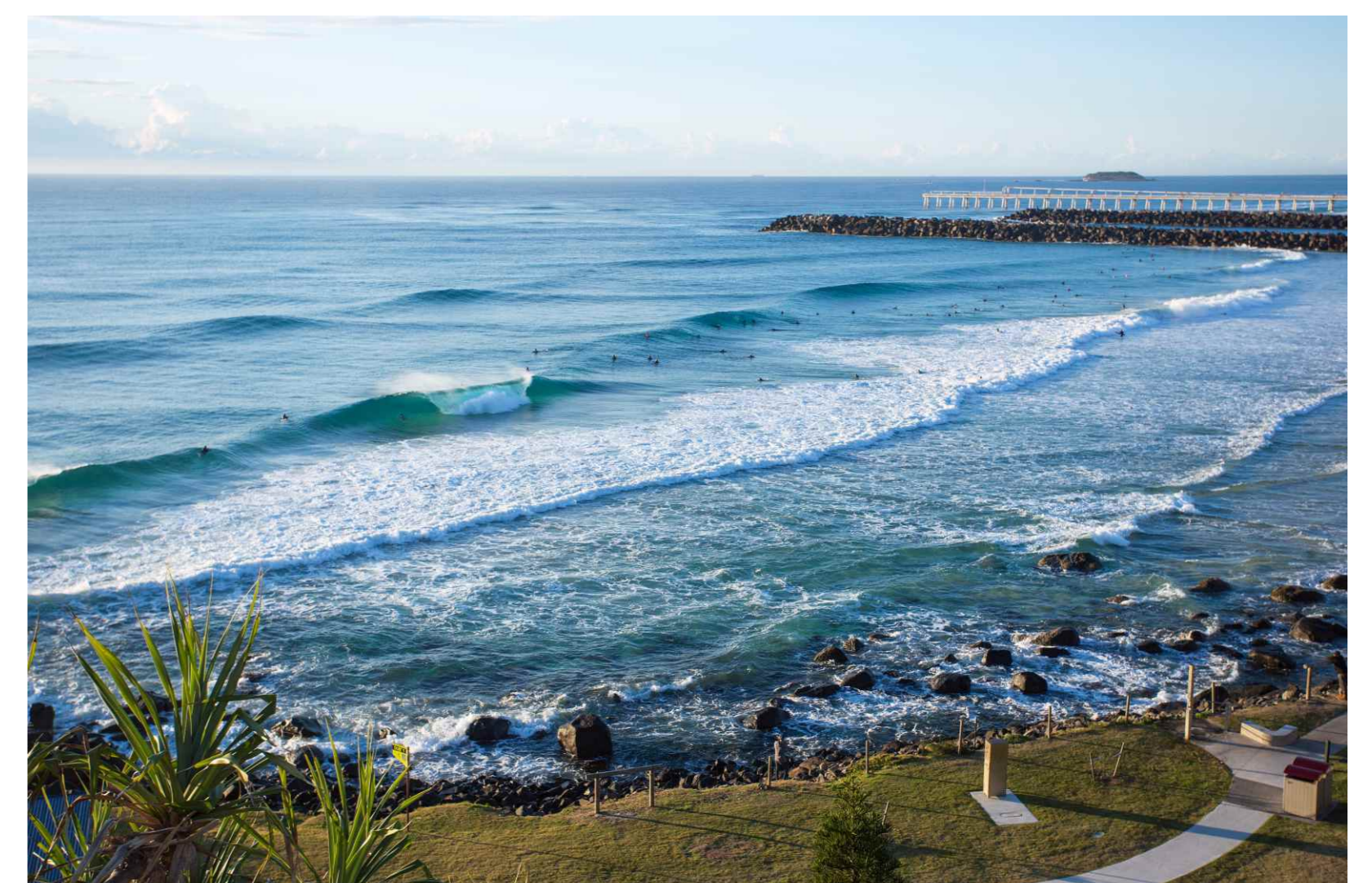
Comparisons of Duranbah Beach at the start of the training wall extensions in 1962, some 30 years later in 1995 and current in 2018.

## SAND SUPPLY

- The beach faces east and is consistently exposed to ocean swell. The sandy upper beach of Duranbah is dynamic and can vary in width by up to 60m. This is due to the variability in sand supply from Letitia Spit and wave and storm conditions.

- To provide nourishment for the upper beach and nearshore shoals, sand is delivered by Tweed Sand Bypassing to Duranbah typically twice a year in autumn and spring.

- The condition of the offshore Tweed River entrance bar influences the degree of natural entrance sand bypassing and affects the pattern of sand supply to Duranbah Beach. Sand delivered by the project and natural sand movements help promote the formation of surfing sandbanks which Duranbah is so well known for.



Duranbah Beach 2018