

Pakiri Beach Monitoring Report 2025

Pakiri Beach is monitored by Auckland Council’s Coastal Processes Monitoring Programme to determine rates of sand gain (accretion), or sand loss (erosion), identify storm impacts, and monitor beach operations. By improving our understanding of how Auckland’s coastline changes over time, we can make more informed decisions to manage coastal hazards, guide beach maintenance, and support the resilience of our beaches into the future.



Scan the **QR code** to check out all beach data here.

This report presents changes at Pakiri Beach over the last year. Check out the latest [State of Environment report](#) to explore long-term trends of beach change in Tāmaki Makaurau or [click here](#) to learn more about how we measure and describe changes at the coast.

Observed Coastal Change

The Coastal Processes Programme monitors sand levels at Pakiri Beach with 8 profile lines running perpendicular to the shoreline (Figure 1). These long-term records help us track changes in beach width and beach volume over time.



Figure 1: Location of the 8 monitored beach profiles at Pakiri Beach. The representative profile shown in Figure 2 is highlighted with a black border. All beaches included in this reporting scheme are shown on the right-hand side map of Auckland.

Change in sand levels:

Figure 2 shows historic sand levels at Pakiri Beach Profile 6, from the dunes down to the water level. Sand levels at Pakiri Beach currently sit near the bottom of the historic range indicating sand levels are close to the lowest on record.

In 2025, the foredune has remained stable while sand levels on the beach have varied, dropping over winter to the lowest levels on record. However, by December sand levels at the upper beach increase, exceeding February levels (Figure 2).

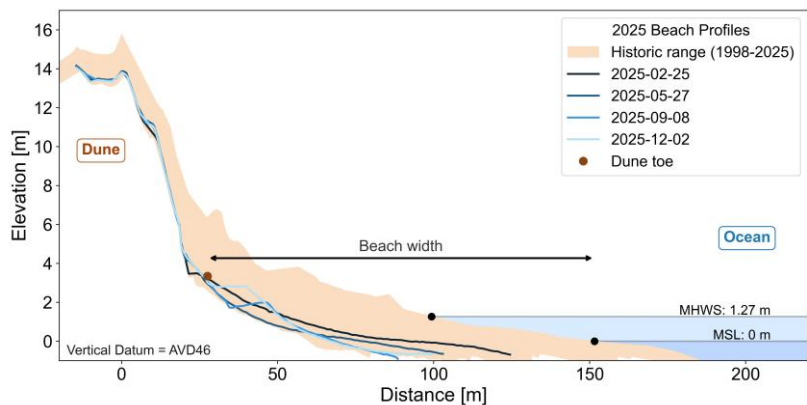


Figure 2: Changes in sand levels at Pakiri Beach P6. Mean Sea Level (MSL) represents the average mid-tide level, Mean High Water Springs (MHWS) marks the average high-tide line. Beach width is the distance between dune toe and MSL.

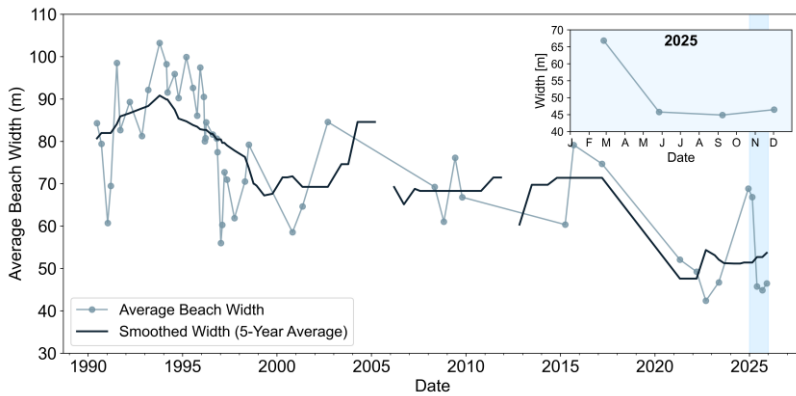


Figure 3: Beach-wide averaged width (calculated between dune toe and MSL) at Pakiri Beach.

Change in beach width:

Pakiri Beach shows long-term beach narrowing with substantial short-term fluctuations likely driven by storms and large swell events eroding the beach and foredune (Figure 3). Throughout 2025, Pakiri Beach has experienced a reduction in average beach width, decreasing from ~65 m in January to ~45 m in September. Since September, sediment deposition increased upper beach width while sand levels at the lower beach remain low (Figure 2).

Change in beach volume:

Since monitoring began in the 1990s, the amount of sand at Pakiri Beach has decreased, with the largest drop between 1990 and 2000 when beach volume nearly halved (Figure 4). The historical record is patchy between 2000 and 2015 due to gaps in older profiles limiting volume calculations but recent methods now capture the full beach profile.

This year, average beach volume dropped over winter before starting to recover by December (Figure 4).

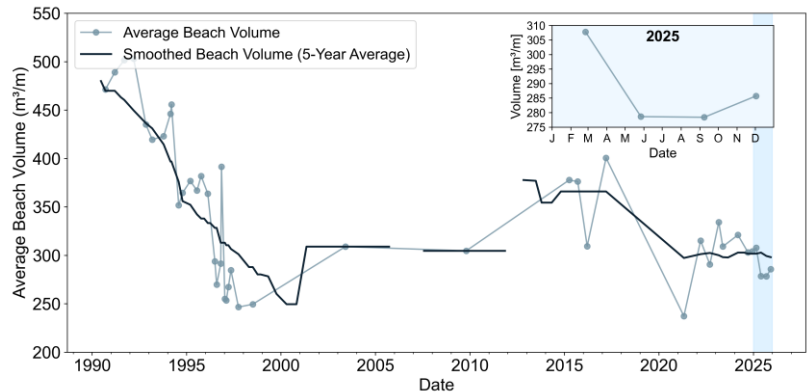


Figure 4: Beach-wide averaged volume (calculated above MSL) at Pakiri Beach.

Coastal Management Activities

1978 start



Routine monitoring

No major coastal management interventions recorded.



1999 ongoing



Periodic realignment/ opening of Pakiri stream mouth

What has been going on?

Pakiri Beach has experienced minimal coastal management intervention; however, external activities such as forestry, historic sand mining, and accessway realignment, weed control, and restoration planting associated with northern development have likely influenced the beach and dune system.

Coastal operations, such as the realignment and opening of Pakiri stream mouth, has been undertaken to clear the buildup of sand and reduce flood risk.

Learn more about [Auckland's Shoreline Adaptation Plans](#).

PAKIRI BEACH

8 BEACH PROFILES are used to monitor Pakiri Beach

111 SURVEYS RECORDED a detailed monitoring record

4 SURVEYS A YEAR beach is surveyed every 3 months

47 YEARS OF DATA tracking coastal change at Pakiri Beach

1978 START monitoring began over four decades ago