



Long Bay Monitoring Report 2025

Long Bay 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 Long Bay 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 Long Bay with 2 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 2 monitored beach profiles at Long Bay. 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 Long Bay Profile 2, from the dunes down to the water level. Sand levels are currently sitting in the lower half of the historic range indicating sand levels are relatively low especially around the MHWS line but have been lower in the past (Figure 2).

Throughout 2025, sand levels have been relatively stable below MHWS, however the upper beach has experienced considerable beach lowering between January and December (Figure 2).

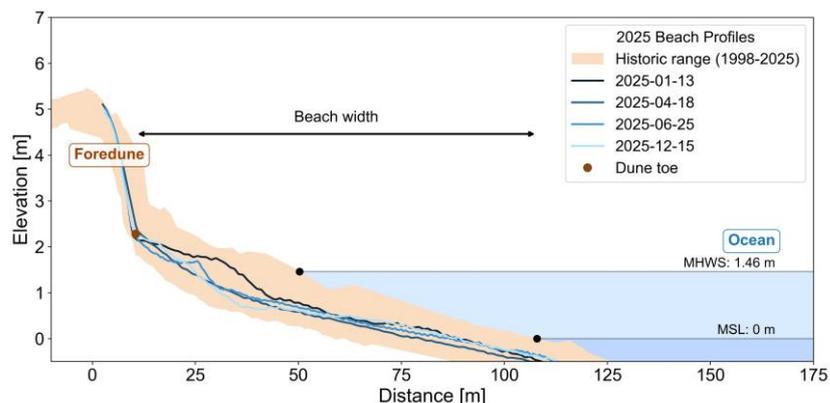


Figure 2: Changes in sand levels at Long Bay P2. Mean Sea Level (MSL) represents the average mid-tide level, Mean High Water Springs (MHWS) marks the average high-tide line. Beach width is the distance between dune toe and MSL.

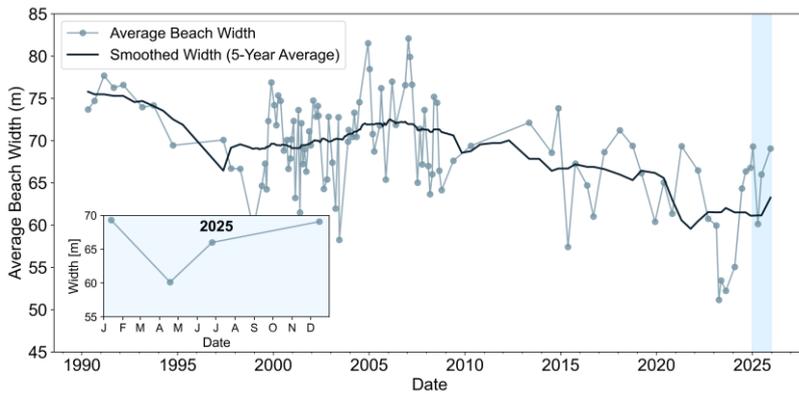


Figure 3: Beach-wide averaged width (calculated between dune toe and MSL) at Long Bay.

Change in beach width:

Long Bay exhibits long-term narrowing (erosion) but with considerable short-term fluctuations likely due to storms and large swell events (Figure 3). For example, nearly 10 m of beach narrowing in response to Cyclone Gabrielle in 2023 is clearly visible in the record. In 2025, beach width decreased from ~70 m in January to ~60 m in April, before recovering back to ~65 in July and ~70 m in December.

Change in beach volume:

Since monitoring began in the 1990s, Long Bay has shown a long-term reduction in beach volume, alongside decadal-scale cycles and short-term fluctuations, likely driven by changes in wave climate and storm events, that temporarily move sand offshore (Figure 4). In 2025, beach volume was highest in January due to sand deposition near MHWS, followed by a sharp decline in April and slow recovery towards the end of the year.

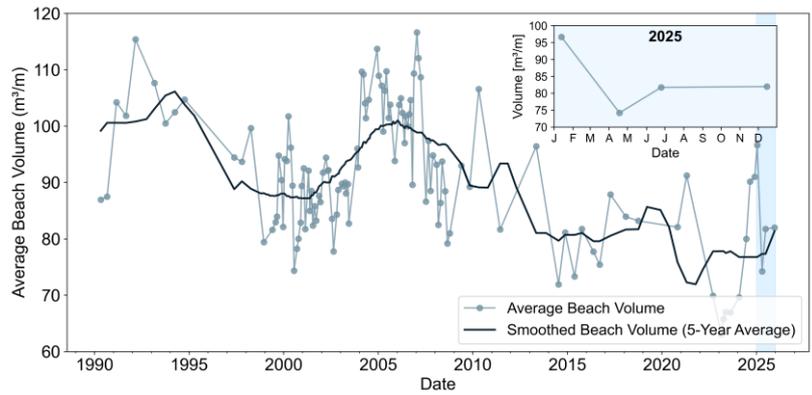
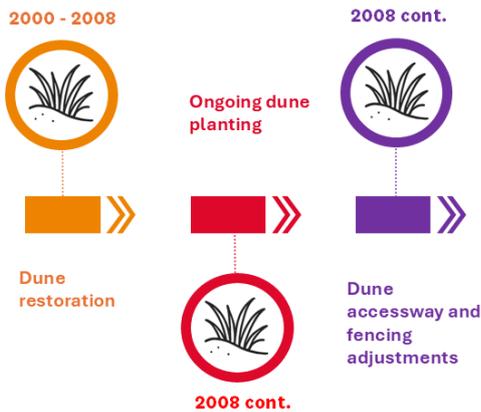


Figure 4: Beach-wide averaged volume (calculated above MSL) at Long Bay.

Coastal Management Activities



What has been going on?

Long Bay is a relatively natural beach, with only limited coastal management activities over the years. The focus has been on dune restoration and planting to help maintain and protect the dune system as well as dune accessway management and adjustments. The first dune restoration operations occurred between 2000-2008 with subsequent dune planting events ongoing. Learn more about [Auckland's Shoreline Adaptation Plans](#).

LONG BAY

2 BEACH PROFILES are used to monitor Long Bay

163 SURVEYS RECORDED a detailed monitoring record

4 SURVEYS A YEAR beach is surveyed every 3 months

43 YEARS OF DATA tracking coastal change at Long Bay

1982 START monitoring began over three decades ago