Omaha Beach Monitoring Report 2025

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

Omaha 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.

This report presents changes at Omaha 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 Omaha Beach with 9 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.

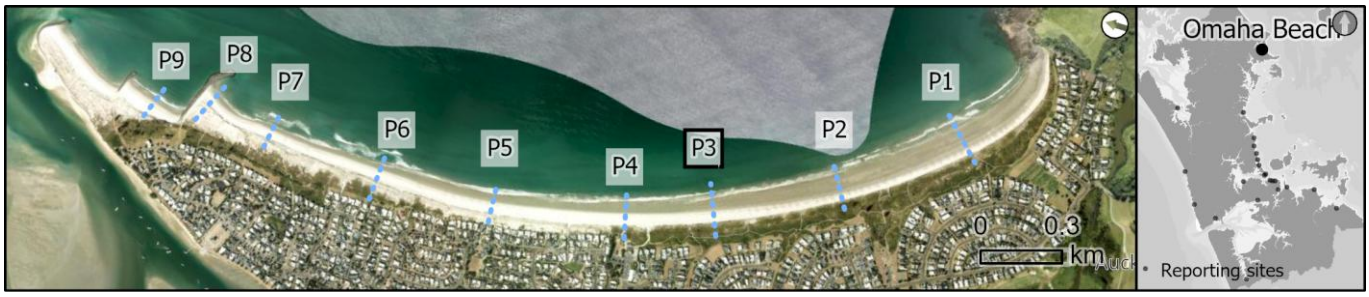


Figure 1: *Location of the 9 monitored beach profiles at Omaha Beach. The representative profile shown in Figure 2 is highlighted with a black border. All beaches included in this reporting scheme are shown on the right-hand side map of Auckland.*

Change in sand levels:

Figure 2 shows historic sand levels at Omaha Beach Profile 3, from the dunes down to the water level. Sand levels along the beach are currently in the middle of the historic range, although the foredune is at it's highest point since monitoring began (Figure 2).

In 2025, beach sand levels were highest in May lying close to the top of the historic range, before dropping back to the middle for the remainder of the year. However, the upper beach shows increased sand levels in the December survey.

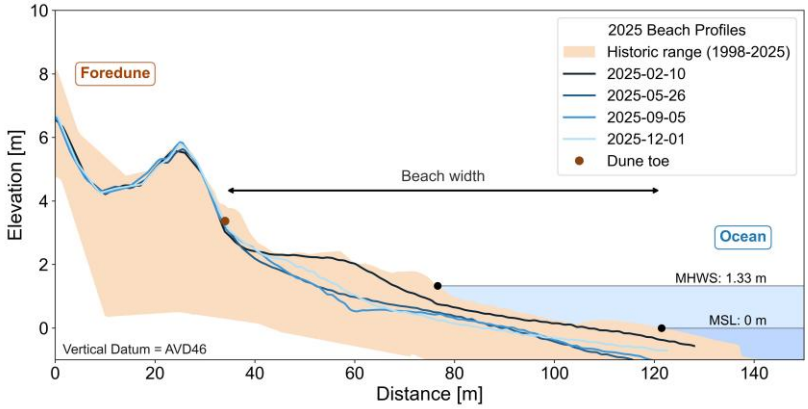


Figure 2: *Changes in sand levels at Omaha Beach P3. Mean Sea Level (MSL) represents the average mid-tide level, Mean High Water Springs (MHWS) marks the average high-tide line. Beach width is the distance between dune toe and MSL.*

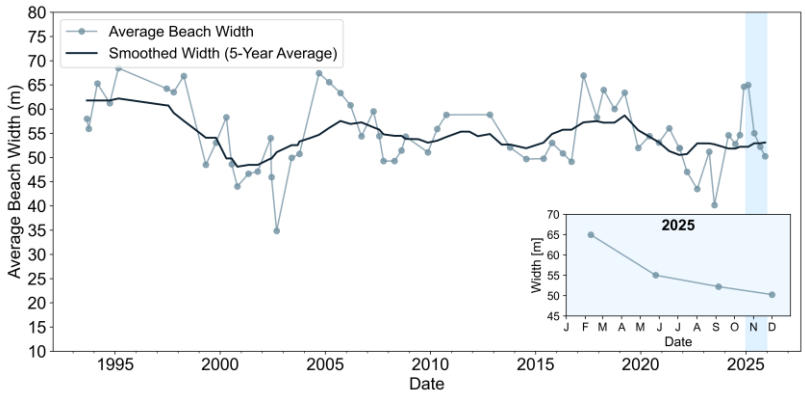


Figure 3: *Beach-wide averaged width (calculated between dune toe and MSL) at Omaha Beach.*

Change in beach width:

Omaha Beach has remained relatively stable since the 1990s (Figure 3), although beach width increased considerably following groyne installation in 1978. Spatial variability is evident, with declining sand levels north of the groynes due to interrupted sediment transport and sediment retention on the southern side.

In 2025, average beach width decreased by ~15 m between February and December due to significant winter erosion across most southern beach profiles (Figure 2; Figure 3).

Change in beach volume:

Since consistent monitoring began in the 1990s, the amount of sand at Omaha Beach has increased (Figure 4). Despite the long-term trend of sand gain, large drops in beach volume can be observed throughout the record likely in response to storm events temporarily transporting sediment off the beach.

This year, average beach volume dropped considerably over winter but increased slightly in December due to accretion of the upper beach (Figure 4).

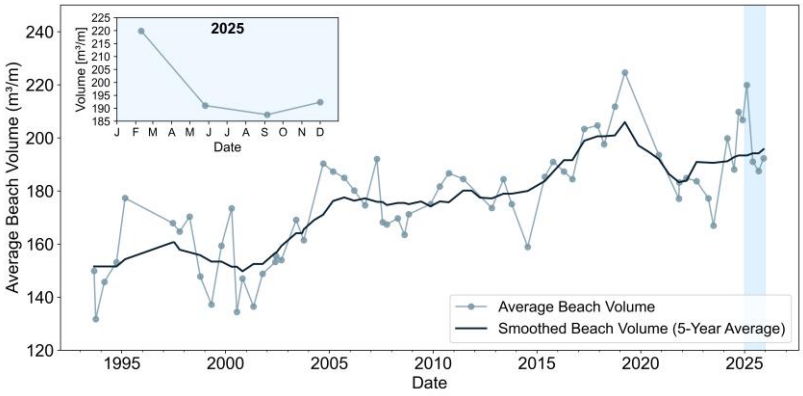
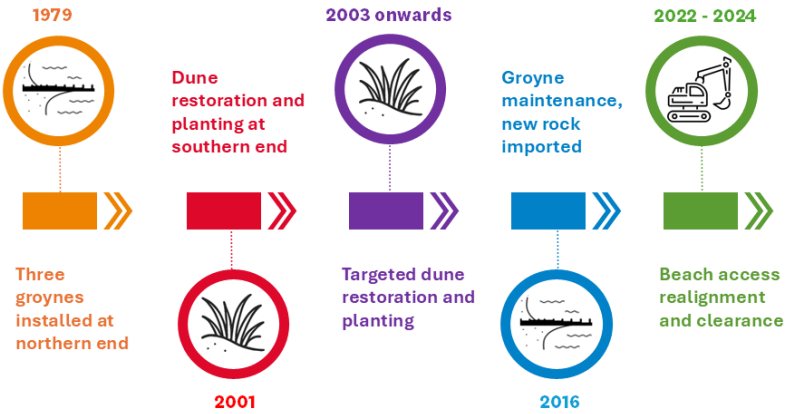


Figure 4: *Beach-wide averaged volume (calculated above MSL) at Omaha Beach.*

Coastal Management Activities



What has been going on?

Following extensive storm erosion in 1978, three groynes were constructed at the northern end of Omaha Beach to help trap sand on the beach. Since 2001, large-scale dune restoration and planting efforts have been undertaken on the southern half of the beach to help stabilise the dune system. Targeted dune planting continues today, and ongoing beach accessway renewal, realignment and clearance to reduce foot traffic over sensitive dune areas.

Learn more about Auckland's Shoreline Adaptation Plans.

OMAHA BEACH

9 BEACH PROFILES
are used to monitor Omaha Beach

120 SURVEYS RECORDED
a detailed monitoring record

4 SURVEYS A YEAR
beach is surveyed every 3 months

64 YEARS OF DATA
tracking coastal change at Omaha Beach

1962 START
monitoring began over six decades ago