

Woorim Beach - Trial sand back-passing system

We're making changes to beach nourishment at Woorim

City of Moreton Bay will decommission a five-year trial sand back-passing system at Woorim Beach from November 2024 following an extensive analysis of the trial period between 2019 and 2023.

Council's preferred method of beach nourishment will be to dredge sand from an approved offshore channel and pump it to shore to better manage natural, long-term coastal erosion.

Replacing lost sand helps to maintain the width of the beach and front dune and is important for:

- stabilising the shoreline
- buffering against storm surges
- protecting coastal infrastructure
- providing recreational space
- supporting coastal ecosystems and wildlife habitats.

Decommissioning the trial

Decommissioning of the sand back-passing system is expected to start in early November 2024 and be completed in December 2024 before school holidays (depending on weather and other unforeseeable circumstances).

All of the pumping infrastructure will be dismantled including the pumping station, the 2 km pipeline and the outlet cage (see map for locations). The equipment will be temporarily placed at the Skirmish Point car park before being permanently removed.

After removal, the pumping station site and areas disturbed by the pipeline will be made safe and then rehabilitated.

Council is committed to avoiding adverse impacts to this sensitive dune environment and local turtle nesting areas during the decommissioning. We will work with relevant community groups to achieve this.

The trial

Since the 1980s, beach nourishment at Woorim was done by dredging sand from an approved offshore site (Spitfire Channel), transporting it by barge, and pumping it towards the nearshore.

In late 2019, we commenced the trial sand back-passing system to test its effectiveness as an alternative solution. This was done by capturing sand that naturally accumulated at the southern end of the beach and pumping north to eroded parts of the beach.

The pumping station was located at Benalong Street and sand was pumped north along a 2km pipeline as far as Fifth Avenue.

During the trial period between 2019 and 2023, we monitored and surveyed the beach and nearshore conditions. We analysed the data and models to assess the performance of the trial and gauge its potential to continue over a longer period (12 years).

We also compared the two erosion control methods by way of coastal protection, environmental enhancement, recreational amenity, adaptability and value-for-money.

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Assessment outcomes

Our analysis showed:

- Sand back-passing successfully maintained the beach and front dune in the northern area between First and Fifth Avenues, but erosion slightly increased in the southern area near Benalong Street.
- If continued, sand back-passing was predicted to maintain the beach width between First and Fifth Avenues but it would result in beach recession close to and further south of the pumping station.
- Over the longer-term, dredging would perform better than sand back-passing.

Next beach nourishment campaign

Following decommissioning of the trial back-passing system, Council will recommence dredging as the preferred option for beach nourishment. The next campaign is now being planned for the second half of 2026 (subject to budget). We will provide more information when the timing is confirmed.

Further information

For more information about the management of coastal erosion at Woorim Beach please:

- Phone 07 3205 0555 (refer document 70737687)
- Email council@moretonbay.qld.gov.au
- Visit www.moretonbay.qld.gov.au/Services/Projects/Environmental/Woorim-Beach-Sand-Back-Passing-Trial



(1) Pump station - Benalong Street, (2) Seawater intake pipe, (3) Sand intake pipes,

(4) 2 km sand transfer pipe, (5) Optional sand placement outlets, (6) Primary sand outlet - Fifth Avenue