



# Managing Adelaide's beaches

## BEACH WORKS UPDATE

### **FAQs – Works to replenish West Beach with sand from Torrens Outlet May 2021**

Works to replenish the dune near Rockingham Street, West Beach with sand from the Torrens Outlet are undertaken regularly. The works are a rapid response to address erosion at this vulnerable location where the dunes are subject to ongoing erosion.

Regularly replenishing sand at erosion hot spots such as the area at Rockingham Street is required to protect the road and infrastructure from damage.

Works were undertaken between May and August 2020 to replenish the area following storms and bad weather and again in January, March and April 2021.

Sand is moved along the beach from the Torrens Outlet to the affected areas. The community are asked to please take extra care on the beaches while the works are underway and adhere to all safety signage and flagging in place during operations. The works are subject to change depending on the weather and tides.

More sand will be moved to West Beach from Semaphore commencing in May 2021.

#### **Why does this beach need to be regularly replenished?**

Regularly replenishing sand at erosion hot spots such as the area at Rockingham Street is required to protect the road and infrastructure from damage.

The state government is investing \$48.4 million to address the erosion issues at West Beach in the long-term, which includes delivering a large amount of sand from outside of the Adelaide beach system to raise the beach levels and boost sand dune buffers at West Beach, and constructing a sand recycling pipeline from Semaphore to West Beach. Learn more and subscribe for updates at [environment.sa.gov.au/coasts](https://environment.sa.gov.au/coasts).

#### **Why replenish the dune when the sand just gets washed away again?**

When beaches are replenished with sand it is normal for some of it to be washed away or eroded by subsequent weather events. This process of erosion absorbs the energy of the storm and plays a critical role in protecting Adelaide's beaches and coastal infrastructure. If the replenishment sand wasn't there then West Beach would be even more eroded and exposed.

Much of the sand that is washed offshore during storms forms offshore sand bars. These sand bars cause waves to break further offshore and lose energy before hitting the beach, helping to protect the beach and dune systems. Sand from the offshore bars is moved back onshore during calmer periods, so it is not wasted. This sand will also help maintain beaches as it drifts naturally to the north.

Adding sand to the Adelaide beach system benefits more than just West Beach - it also ensures there is more sand to flow between the beaches and be recycled.

#### **How much sand is being moved from the Torrens Outlet to Rockingham Dunes?**

Approximately 3,000 cubic metres (m<sup>3</sup>) will be moved during these works.

#### **Will moving sand from the Torrens Outlet be an ongoing occurrence?**

The movement of sand from the Torrens Outlet will occur within the following parameters:

- Sand from the Torrens Outlet will only be used to replenish the Rockingham Street dunes. It will not be taken to other locations.
- A maximum of 20,000m<sup>3</sup> will be moved from the Torrens Outlet to Rockingham Street dunes in the 2020-21 financial year.

Sand will only be moved from the Torrens Outlet to the Rockingham Street dunes to allow a rapid response to storm events and erosion. Therefore the timing, frequency and volume of each sand movement is not yet known and will depend on how the Rockingham Street dunes respond to weather events. The intent is that any future works will be similar to what has been done in previous campaigns (i.e. a small volume of up to 5,000 m<sup>3</sup> to allow a rapid response to storm events and erosion).

### **How much sand has been moved from the Torrens Outlet in the last year?**

Approximately 17,000m<sup>3</sup> of sand has been moved from the Torrens Outlet to the Rockingham dunes so far in the 2020/21 financial year.

### **What will be the impact on the River Torrens outlet?**

Moving these small volumes of sand from the Torrens Outlet is not expected to have any significant impact on the dunes or bar systems at the outlet. The Department for Environment and Water's survey data shows that large volumes of sand have accumulated at the Torrens Outlet over the last three years. The maximum volumes of sand described above have been set so that they are much lower than the rate at which sand is accumulating at the Torrens Outlet each year. Sand will therefore continue to accumulate at the Torrens Outlet.

### **Is this part of the increased replenishment announced for West Beach for 2019-20 and 2020-21?**

Sand moves northwards out of West Beach at an average rate of 115,000m<sup>3</sup> per year due to the natural process of littoral drift. The increased replenishment of West Beach aims to match or exceed this average annual loss of sand. We do this by bringing sand back from areas where sand builds up along the coast.

The current movement of sand from the Torrens Outlet to the Rockingham Dunes is effectively "recycling" sand within West Beach. As such it is not part of the increased replenishment of West Beach and is not included in the additional replenishment to date.

### **When will sand be moved again to West Beach from Semaphore?**

Sand is being moved from the Semaphore and Largs Bay area to replenish West Beach periodically 2-3 times per year (autumn and spring in 2020 and 2021). Sand will be moved again from May 2021.

### **Will this mean more external sand can be funded by the Securing the Future of our coastline project?**

It is intended to maximise the volume of external sand delivered to West Beach within the overall approved project budget, so efficiencies and savings in other areas of the project increase the likelihood of being able to deliver more external sand to West Beach.

### **Will sand be moved from the Torrens Outlet in the longer term?**

We are only at the start of the design process for the new sand pumping system. It is too early to give answers around future collection volumes and locations, including what role sand from the Torrens Outlet might play. The Community Reference Group that has been formed as part of the *Securing the Future of our coastline* initiative and other stakeholders will have input to these considerations during the design process for the new pipeline.

### **Will collecting sand from the Torrens Outlet cause more erosion along this section of coast?**

Periodically moving these small volumes of sand from the outlet is not expected to have any significant impact on coastal processes along the West Beach and Henley Beach South section of coast. DEW's survey data shows that large volumes of sand have accumulated at the outlet over the last three years. The amount of sand being moved from the outlet is much lower than the rate at which sand is accumulating each year. We will continue our monitoring program such that any impacts can be assessed and the program of works altered if necessary.

### **Why not build groynes to hold sand on beaches?**

Structures like groynes, breakwaters and seawalls can be used to help trap sand and protect infrastructure. But to manage Adelaide's coastline well groynes are not the answer. They are costly to install, require large quantities of sand, interrupt recreational beach use, are visually unappealing and can cause the coast on the northern side of the structure to become starved of sand. By focusing on moving sand, long sandy beaches can be achieved without the additional cost and side-effects of expensive structures.

### **Why is this not 'sand mining'?**

Sand is being recycled not 'mined'. It is the sustainable management of a finite and incredibly valuable resource, and we have been doing it for nearly 50 years.

[View more FAQs regarding the Securing the Future of our Coastline initiative](https://environment.sa.gov.au/coasts)  
[environment.sa.gov.au/coasts](https://environment.sa.gov.au/coasts)