



Securing the future of our coastline

PROJECT UPDATE

November 2021

Fast facts - Semaphore to West Beach sand recycling system

What is the pipeline development application?

A development application to the State Commission Assessment Panel is required to enable the construction of the sand recycling pipeline from Semaphore to West Beach.

- The community are able to review the development application and make comment through the [Plan SA Portal](https://plan.sa.gov.au/en/state_developments) (https://plan.sa.gov.au/en/state_developments) during the public notification period that commenced on 8 November 2021.

Submissions close on Friday 6 December 2021.

- If approved the project will then enter a detailed design phase prior to construction commencing in 2022.
- The development application has been informed by ongoing consultation and preliminary feedback on the concept design by the project Community Reference Group.
- A range of investigations such as flora and fauna assessments, cultural heritage surveys, noise assessments and other environmental analyses have been undertaken to inform the design of the pipeline.

How do you know the new system will work?

There's an existing underground sand recycling pipeline between Glenelg and Kingston Park that successfully keeps our southern metropolitan beaches sandy and the dunes maintained. Pipelines are also used successfully in coastal locations across Australia and around the world to keep beaches replenished.

How was the proposed pipeline alignment chosen?

The pipeline will be a buried pipeline spanning approximately 10 km along the coast from Semaphore South to West Beach. The proposed pipeline alignment and locations of key infrastructure were chosen based on:

- Optimal sand collection and discharge locations.
- Technical and operational criteria (e.g. hydraulic design requirements for the pumping system).
- Minimising crossing existing services.
- Minimising vegetation and dune disturbance.
- Minimising disruption to public access.
- Environmental constraints based on stakeholder input.
- Maintaining water quality within West Lakes.

What environmental assessments have been undertaken?

All the appropriate environmental assessments are being done prior to constructing the pipeline. This includes investigations such as flora and fauna assessments, cultural heritage surveys, noise assessments and other environmental analyses. An independent impact assessment of the new sand recycling pipeline has also been undertaken. Future climate change and sea level rise has been considered in the design.

Will the sand recycling pipeline run all year round?

No. The sand recycling pipeline will operate in the quieter months when beaches are used less. The pipeline won't operate over summer. It's expected that operational times will be much like the current Glenelg to Kingston recycling pipeline which operates from June to early November each year. If a major storm event occurs outside of this time, then the system may be used to replenish beaches where required.

Are the pump booster stations noisy?

No. The pumps are underground, electrically operated and quiet with no exhaust emissions. They only operate during pumping which occurs during daylight hours.

How will dunes be remediated after construction?

Where construction through sand dunes is undertaken the dunes will be remediated and rehabilitated with vegetation. The project includes a commitment to restoring sand dunes using best practice techniques and native plants in partnership with local councils and coastal community groups.

Will the pipeline go through the Wara Wayingga-Tennyson Dunes Conservation Reserve?

The pipeline will not go through the Wara Wayingga-Tennyson Dunes Conservation Reserve. It will be buried in the beach in front of the reserve.

Why is a water intake and seawater pipeline needed?

Seawater is required to mix with the sand to make a slurry that can be pumped. It is proposed to connect into the existing seawater intake for West Lakes at Inlet Reserve. The connection will be upstream of the control gates for West Lakes, ensuring that there is no impact on water levels or water quality in West Lakes. The seawater will be pumped through an underground water intake pipeline to sand collection locations at Bower Road, Semaphore South and Terminus Street, Grange. The water intake pipeline be laid in the same trench as the sand recycling pipeline along the beachfront.

Once operational how much sand will be collected at Semaphore and Grange?

The department undertakes beach surveys each year (normally in December and January). These surveys measure how the beaches have changed over the last 12 months, including sand loss (erosion) or sand build up (accumulation). This survey data is used to determine beach replenishment activities for the year, including where sand may be collected from and pumped to through the new system.

How much machinery is needed for sand collection once the pipeline is operational?

Once operational there will be three pieces of larger machinery on the beach to collect sand and feed it into the pumping system. This machinery is only on the beach when sand pumping is underway.

1. A **landplane** attached to a tractor collects sand from the beach.
2. An **excavator** loads sand into a sand collection unit.
3. A **sand collection unit** (consisting of a screen, a conveyor system and a rotating trommel) screens the sand to remove stones, larger shell fragments and other debris. The sand and seawater mixture is then pumped to the main pump station.

What community engagement is occurring?

The government is working closely with a community reference group on the project. Engagement with local communities will be undertaken as part of the detailed design phase and for the dune restoration works.

How can members of the community find out more?

Visit the department's website at www.environment.sa.gov.au/coasts and subscribe for updates.

Contact the project team on phone 8124 4928 or email DEWCoasts@sa.gov.au.