

# WYOMI BEACH ADAPTATION PATHWAYS COMMUNITY ENGAGEMENT FAQs



## Background

The following FAQ fact sheet has been developed to provide responses to key questions raised during the Wyomi Beach Adaptation Pathways community engagement period.

### ***Can a groyne or series of groynes be constructed as a long-term adaptation pathway at Wyomi?***

Groynes were considered as part of the Coastal Adaptation Strategy but were not put forward as a feasible adaptation pathway, as they are unlikely to be effective at Wyomi Beach.

To explain why, let's first revisit:

- What's causing erosion at Wyomi, and
- How do groynes work?

### ***Erosion at Wyomi Beach is caused by two main processes:***

- **Reduced sand moving along the coast**  
Sand generally moves from south to north along the Kingston beaches. A natural offshore feature is trapping sand at Pinks Beach, which means there is less sand moving north to Wyomi Beach.
- **Storm events**  
During storm events, high waves and water levels erode the beach and dune, moving the sand offshore. The Wyomi Beach shoreline is highly susceptible to this process. This type of erosion was experienced during the July 2016 storm event (shown below).



Copyright ABC News

### ***How do groynes work?***

Groynes work by blocking sand moving along the coast, trapping sand on the updrift side causing the updrift beach to accrete or widen over time. When enough sand has built up, it will move around the end of the groyne.

For this to work effectively, there needs to be a constant supply of sand moving along the coast, which is not the case at Wyomi Beach.

Furthermore, without enough sand to build up and bypass a groyne there is even less sand available on the downdrift (i.e. northern) side, which leads to rapid erosion. This would accelerate the erosion problem at Wyomi Beach.

It is also important to understand, groynes cannot reduce or prevent a shoreline's exposure to high waves and water levels. Therefore, parts of Wyomi Beach would continue to be highly susceptible to storm erosion.

Given the above, if groynes were constructed, Wyomi Beach would continue to be exposed to the two main processes causing the erosion. Therefore, not reducing or preventing the erosion, but having the potential to accelerate erosion of the beach and dunes to the north.

Given these reasons, groynes will not be considered further.

### ***What impact has Cape Jaffa and Maria Creek boat launching facilities had on the erosion at Wyomi?***

The longer-term erosion at Wyomi Beach is due to the natural processes described above and not due to the breakwater structures at Cape Jaffa and Maria Creek:

- The erosion at Wyomi has been occurring for several decades, which predates construction of Cape Jaffa Marina (completed 2008).
- A detailed review of shoreline movements from aerial photography showed the erosion caused by the Cape Jaffa breakwaters is limited to the 1.8km stretch of coastline to the east. This erosion does not extend to Wyomi (15kms north of Cape Jaffa).
- Wyomi Beach is located on the updrift or accretive side of the Maria Creek breakwaters, therefore it's not contributing to erosion at Wyomi.

# WYOMI BEACH ADAPTATION PATHWAYS COMMUNITY ENGAGEMENT FAQs



## ***Is it possible to construct a seawall and maintain dune vegetation as well?***

Dune vegetation is an important coastal value which has the potential to be impacted if a seawall is constructed, either during construction or in the longer term.

There are two options for the seawall alignment at Wyomi with trade-offs for each that need to be considered:

**Option 1** – Construct all seawall stages along the front of existing dune:

- Advantages:
  - Vegetation at rear of dune is maintained, providing a wide, vegetated buffer between the road and seawall. However, it's important to note the dune biodiversity is likely to reduce over time, as the natural sand replenishment from the beach is blocked by the seawall.
- Disadvantages:
  - Earlier loss of the beach and foredune as the seawall will interrupt coastal processes sooner.
  - Much higher cost as the seawall staging is required sooner and is exposed to wave action for longer (i.e. requiring repairs and upgrades).

**Option 2** – Construct seawall along road alignment:

- Advantages:
  - Maintaining a beach for longer.
  - Lower cost, as seawall staging is held off until later. Reducing overall longer term maintenance costs.
- Disadvantages:
  - All dune vegetation is lost.

A potential balance of these two options exists where a minimum dune buffer is set within the erosion trigger values. For example, a minimum 10m of dune vegetation could be maintained between the hard assets (i.e. footpath, cable or road) and the seawall.

Should a seawall be the preferred option going forward, the seawall will require preliminary and detailed design prior to construction of the initial stage. There will be the opportunity for the community to review and provide feedback on the seawall alignment at this time.

## ***Are nourishment volumes based on the 2020 and 2021 campaigns and where would the sand be sourced from?***

Yes, present day nourishment volumes are based on the two trial campaigns in 2020 and 2021. Future nourishment volumes are estimated based on potential erosion rates due to sea level rise.

Sand is likely to be sourced from around the Kingston Jetty but this may need to be complemented with other sources in the future depending on sand availability.



## ***Want further information?***

For further information and supporting documents, please refer to the Wyomi Beach Major Project page on Council's website:

<https://www.kingstondc.sa.gov.au/our-services/major-projects/wyomi-beach-adaptation-pathways-project>

Alternatively, contact us at: Kingston District Council  
P | 08 8767 2033  
E | [info@kingstondc.sa.gov.au](mailto:info@kingstondc.sa.gov.au)  
A | 29 Holland Street, PO Box 321, Kingston SE SA 527