

YORKE PENINSULA COUNCIL FACT SHEET

COASTAL PROTECTION STRUCTURES PROJECT

COOBOWIE LEVEE & SEAWALL CONCEPTS

Why do we need protection at Coobowie?

Coobowie is located at the southern end of Gulf St Vincent, and is vulnerable to seawater flooding and erosion during high tides and storm surges. Over time the seawater flood and erosion risk will also increase with sea level rise.

Council has undertaken several studies, investigating the potential extent of seawater flooding at Coobowie and identifying potential future adaptation options to manage seawater flood risks. This seawater flood study is available online at:

<https://yorke.sa.gov.au/content/uploads/Seawater-Study-Coobowie-Adaptation-Options.pdf>

The flood study identified that the foreshore area of the Coobowie townsite is currently vulnerable to seawater flooding, with the risk increasing with sea level rise (refer Figure 1). This area requires flood protection to prevent inundation of properties, roads and other assets. A seawall is also required to prevent erosion damage to levees and properties in exposed locations at the rear of the beach.



Figure 1 – Coobowie flood risk extent

What protection options are available?

In 2022/23 Council received Coastal Protection Board grant funding to develop protection options at Coobowie and 3 other townsites on the eastern Yorke Peninsula coastline. This study has used recent survey data collected on site combined with updated water level information from the Department of Environment and Water (DEW) to develop protection concepts.

For Coobowie, the proposed protection concept involves a series of levees and seawalls to prevent seawater flooding. These concepts are presented in Figure 2 and Figure 3 on the following page and consist of:

- A 1 - 2m high levee and rock seawall in front of the Caravan Park and extending east from Cornish St past Bowden St
- Two seawall concepts have been developed between Johnson St and Cornish St:
 1. A rock seawall with levee (Figure 2)
 2. A vertical concrete seawall (Figure 3)
- A 1m high levee tying into the road on the eastern edge
- Drainage and detention basins at a number of locations landward of the protection structures to manage wave overtopping volumes.

What are the potential impacts?

The impacts of the proposed structures include:

- The beach in front of the seawalls will be lost over time as sea levels rises.
- Visual impact of the levee and seawall. The vertical seawall crest has been set at +2.8m AHD to minimize visual impact, however this may need to be raised 0.5m in the future to manage overtopping volumes and flooding.
- Beach access will be restricted to formalised locations.
- Requirement for clearing of some vegetation on the coastal reserve lots.

The vertical seawall is anticipated to result in less beach width loss, however, this would have a higher crest level and a higher construction cost.

When would these options be implemented?

Protection options are likely to be constructed in the short to medium -term, with Council working closely with the community on funding models, including potential co-funding arrangements.

What next?

Council will be holding a community information session on 10/08/2023 at 11.00am at the Coobowie Community Hall to discuss the concepts. Interested community members are encouraged to attend and provide any feedback.

Approvals and detailed design of the proposed seawall will develop once community and key stakeholder feedback has been received.

Want further information?

Please contact us at:

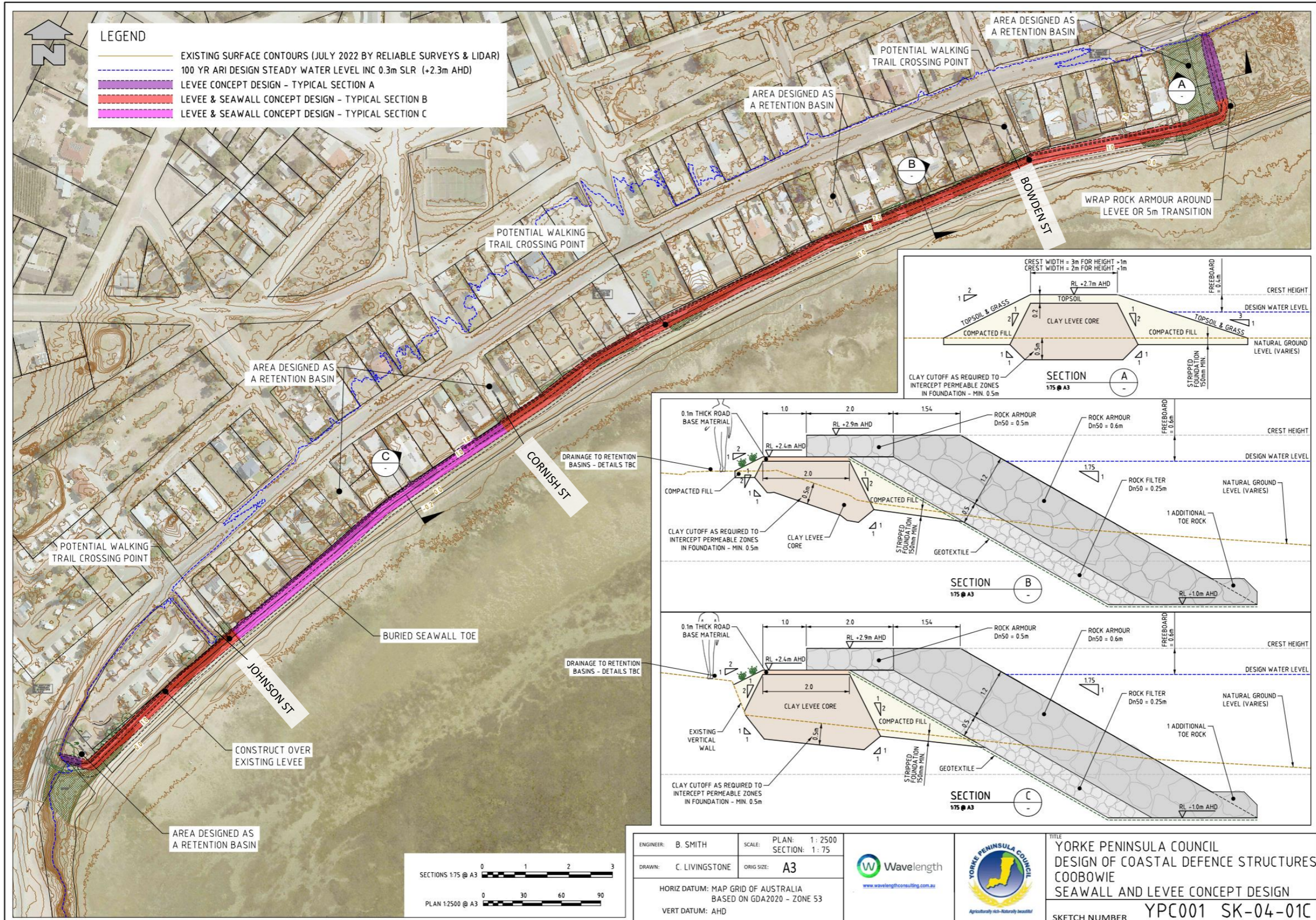
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Figure 2 – Levee and rock seawall concept plan



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Figure 3 – Levee and vertical concrete seawall concept plan

