

update

Coastal Futures update – November 2020

Kia ora

We'd like to update on progress with the Earthquake Legacy Issues project.

On Thursday 12 November, the Council unanimously approved a \$12.5 million package of works to reduce the risk of flooding and erosion in Southshore and South New Brighton. The work approved by the Council includes:

- Replacing or covering the structures along the estuary edge in Southshore to reduce the erosion risk.
- Building a new bund in Southshore to reduce the flood risk.
- Restoring the estuary edge in South New Brighton with a cobble beach.
- Constructing a new bund away from the estuary edge within South New Brighton Park, between the jetty near Beatty Street and the southern end of the campground in Halsey Street.

[You can read the full resolutions online here.](#)

This work all stems from resolutions the Council made in August 2019 to address earthquake legacy issues relating to the estuary edge in Southshore and South New Brighton. [You can read the resolutions here.](#)

Southshore

In Southshore, Council staff were asked to investigate a suitable erosion mitigation plan to resolve earthquake legacy issues on the estuary edge and to advise on the position of an 11.4 metre RL bund to reduce the risk of flooding.

Working with Jacobs and the community-nominated technical expert, Gary Tear, we came up with a proposed approach to erosion mitigation that has now been approved by the Council. The estuary edge from Godwit Street to Tern Street has been broken down into five units, based on common physical characteristics such as the location, current level of protection provided by the existing structures, land and foreshore height, and whether there is saltmarsh already present.



For Units 1, 3a, 3b and 4, we will be placing large rocks along the estuary edge to create an armoured rock revetment. The size of the rocks we'll be using means they won't easily move out of place in a big storm. In some places we'll be putting the rocks over existing structures. In other places we may need to remove excess material so that we end up with a consistent estuary edge that also looks good.

For Unit 2, we are going to create a cobble beach with a designed slope and height. We are also going to build an offshore breakwater which will help develop the salt marsh and provide a natural form of erosion protection. The cobble beach and offshore breakwater provide the same level of protection as the rock revetment in the other units, but is preferred for this area because it makes the most of the existing salt marsh.

Next steps are to get the detained design, consenting and procurement processes underway. All things going to plan, work will start onsite early/mid 2022.

The Council also agreed to the construction of an engineered 11.4 metre RL bund behind the existing LINZ bund alignment. The current plan is to construct the bund at the same time as the edge mitigation works.

Working with a community-nominated technical expert to come to an agreed solution was something new for the Council – we haven't done this kind of thing before. We'd like to thank Gary Teear, the Southshore Residents Association, and the wider Southshore community for their support in making this process a success.

South New Brighton – south of Bridge Street



In South New Brighton, the Council resolution was for staff to implement a set-back bund to give protection to the South New Brighton School and Seafield Place.

Since August 2019 we have constructed the southern and northern sections of a bund in South New Brighton, between Bridge Street and South New Brighton School. Work on the middle section of the bund will be completed in 2021 following the bird-nesting season.

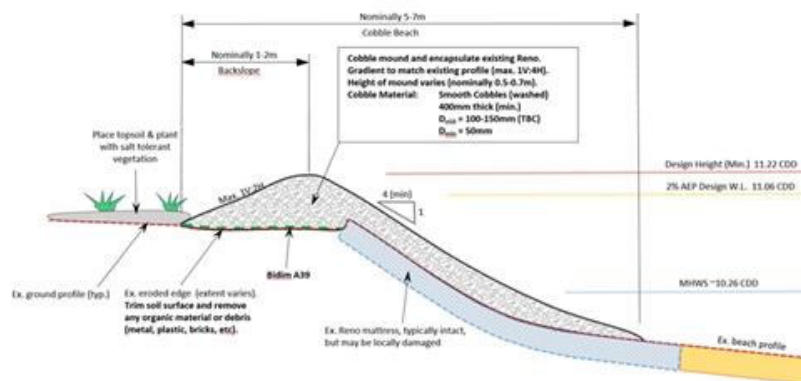
For the estuary edge from the Yacht Club to the boardwalk, the August 2019 Council resolution was to restore using reno mattresses and gabion baskets as previously existed pre-earthquake.

We looked at both a reno mattresses and a cobble beach approach to restoration. In the end, we determined the cobble beach (covering the reno mattresses) was the preferred option and best met the intentions of the Council resolution. Both options would achieve pre-earthquake levels

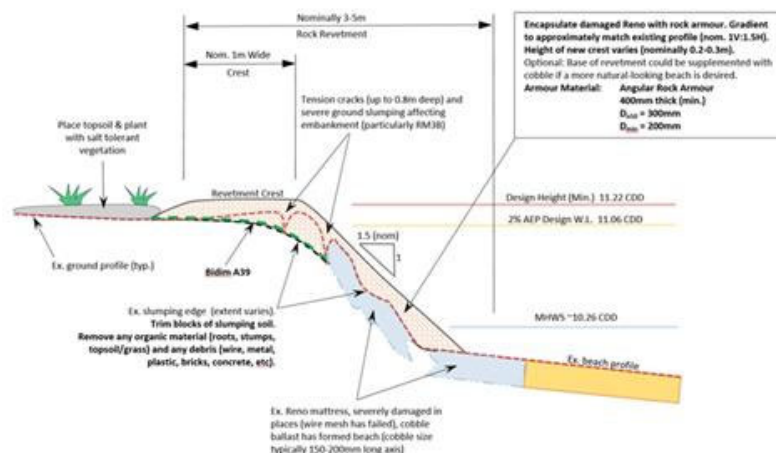
of erosion management, but the cobble beach is better because it:

- Is easier to repair and maintain.
- Has a shallower slope which reduces the potential for its base to erode.
- Can be adapted for sea level rise.
- Enables easier to access the shoreline.
- Creates a more naturalised edge.
- Will help restore the salt marsh in the area.
- Is more consistent with the Council's Biodiversity Strategy and the South New Brighton Reserves Development Plan.
- Is more likely to be granted consent.

Cobble beach with mound (links through to larger version).



Cobble beach covering existing damaged reno mattresses (links through to larger version).



To address flooding in the area, we also now have Council approval to progress a bund set back from the estuary edge by 25 to 100 metres. Together with the Southshore Bund, this

will reduce flood risk to 450 homes as well as the campground.

Next steps for both projects are to review the South New Brighton Reserves Development Plan, to enable this work to proceed. We are estimating work will start on the estuary edge and bund early/mid 2022.

In other Council news, shortly we'll be coming out to talk with the local community early next year about the design for a new pump track in South New Brighton Park, near the children's playground. More info will be available early next year.

South New Brighton – north of Bridge Street

To address the earthquake legacy issues to the estuary edge in South New Brighton – north of Bridge Street – the August 2019 Council resolution asked staff to undertake a stopbank condition assessment. It also asked for an update of the previous investigations into the life safety risk of flooding from a breach or overtopping of the stopbanks. The condition assessment has now been completed. Some minor issues such as tree roots, small scale erosion of the base of the stopbank and overgrown vegetation were identified, but overall it has been assessed as in good condition.

We are still waiting on the technical report from external consultants, GHD, that looks at the life safety risk of flooding from a breach or overtopping of the stopbanks. Once we have the report from GHD we will be releasing the information to the community, and will be organising a site meeting / walk-over so residents can hear from the technical experts and ask any questions.

Area-wide





Work is progressing to create a continuous walkway/cycleway adjacent to the estuary edge. Improvements have been made to the Estuary Walkway from Evans Avenue to Bridge Street.

The remainder of the walkway will be improved in conjunction with the erosion and bund works once heavy machinery has finished on site. A small amount of track will be developed in the interim to realign the walkway in areas that have been eroded

Adaptation planning

The Council has recently agreed to start adaptation planning with low-lying coastal and inland communities likely to be impacted by rising sea levels. The first communities it will be engaging with are those in the Whakaraupō / Lyttelton–Mt Herbert area.

We'll be running information sessions in early December to give interested residents across the district an opportunity to learn more about the coastal hazards adaptation planning programme. The sessions will be held on:

- **Wednesday 2 December:** 6pm–7.30pm, Metropolitan Lounge, the Tannery
- **Thursday 3 December:** 6pm–7.30pm, North Beach Memorial Hall

