



SOUTH NEW BRIGHTON, SOUTH OF BRIDGE STREET

Area	South New Brighton - south of Bridge Street
Issue	Risk of flooding and erosion south of Bridge St, including South New Brighton Park
Option	New setback bunds with re-contoured estuary edge and developed and planted sloping beaches.
Plain English explanation	<p>A new bund(s) that is set back from the estuary edge in necessary locations from south of Bridge Street to the boardwalk, with erosion management that involves re-shaping the estuary edge to develop sloping beaches that can be planted. This would provide the same or a greater level of flood management as other areas in Ihutai/Estuary. It would reduce the risk of flooding in South New Brighton Park and for houses and community facilities (campground, tennis club etc) that are in or near the park. However, it would not reduce flooding of the existing track in the park. This structure could be raised in the future with some modifications.</p> <p>This option could integrate more easily into the landscape, and would provide easy access to the estuary edge. There would be an opportunity to put a path along the top of any bund. It would also provide more opportunities for ecological restoration and this would likely make the consenting process easier (though consents would still be required). However, it would also likely be more expensive than repairing, replacing or infilling the existing erosion management structures. The estimated total cost is approximately \$2-2.5 million.</p>
Description	<p>Bunds would be constructed 25-100 metres from the estuary edge in some locations from south of Bridge St to the boardwalk. The bunds would generally follow the line shown as 'Possible New Stopbank' in the South New Brighton Reserves Development Plan.</p> <p>The bunds would reduce the risk of flooding from the estuary to houses and to community facilities in South New Brighton Park.</p> <p>The bunds' height would be no less than RL 11.4m which is the height of the Beachville Road sea wall and the Kibblewhite Street</p>



	<p>stopbank and is higher than the McCormacks Bay causeway (RL 11.2m).</p> <p>The bunds may not be continuous as they would be merged into existing high ground. They could be planted with small shrubs and have a path on top.</p> <p>Parts of the estuary edge where existing erosion management is failing would be re-contoured or regraded with construction and planting of a sloping beach. This would reduce the current erosion risk based on the updated 2018 high tide statistics.</p> <p>This may involve importing beach-sized material to raise and shape the estuary bed. The bed would slope down into the estuary from a consistent height. Some existing structures could be removed or could remain where they are, and be buried or integrated into the beach. This would reduce the height that the wave reaches up the beach, and therefore erosion of the land edge, but material will gradually be eroded from the bed.</p> <p>The outcome of the works would be similar to the planted edge in other parts of the Ihutai/Estuary.</p>
Estimated Cost	Total cost approximately \$2-2.5 million (approximately \$1-1.5 Million for the bund, and approximately \$1 million for re-contouring).
Delivery Timing	Both could likely be consented and built within 1 -2 years but the re-contouring would require additional investigations, design, consenting and impact assessments.
Implementation Requirements	<p>The edge-contouring has not been assessed or considered for specific areas and would require detailed investigations, design and costing.</p> <p>Construction times may be impacted by the need to avoid bird-nesting season, which runs from September to February.</p>
Consenting Requirements and Compliance with Statutory Documents	Because of the proximity to the estuary edge, this option would likely require non-complying resource consents from both Environment Canterbury and Christchurch City Council for works that are within the Coastal Marine Area, adjacent to Ihutai/Estuary and the area identified as Ngā Wai Coast (Te Ihutai).



	<p>Consents might be more easily granted for this option than the other two due to the naturalised methods of erosion management and the setback location of the bund.</p> <p>Any consent application would require detailed assessment of the effects on the natural environment and cultural values, and consideration of alternatives.</p> <p>Ihutai/Estuary is a Statutory Acknowledgement area and is of high significance to Ngāi Tahu. Ngāi Tahu notes that hard protection structures close to the estuary edge do not allow for natural processes and the option does not provide for the establishment of indigenous planting. During the consenting process engagement would be required with mana whenua and with the Te Ihutai Ahu Whenua Trust.</p>
<p>Considerations</p>	<p>This option allows for natural processes and planting on the estuary edge. There is also an opportunity to enhance the saltmarsh habitat by allowing it move inland where land is now lower and sometimes flooded along the edge. A softer edge with a wider beach would likely provide more flexibility for coastal changes and habitat retention and development.</p> <p>There would be access to the water and estuary edge once the plantings were established.</p> <p>As the bund is set back from the edge and could be planted, and the edge re-contouring is low profile and planted this option would have low visual impact. Some large trees would need to be removed to construct the bund.</p>