

## Comments on a Substantive Application under section 53 of the Fast-track Approvals Act 2024: Coastal processes

Fast-track project name	Wellington International Airport Southern Seawall Renewal
Fast-track application number	FTAA-2510-1118
GW file number	FTA260318

<b>Technical area</b>	<b>Coastal processes</b>
Author	Dr Iain Dawe, Coastal Processes and Natural Hazards Expert, Greater Wellington Regional Council
Date	25 February 2026
Documents considered	<ul style="list-style-type: none"> <li>Wellington International Airport Limited: Southern Seawall Renewal Fast Track Approvals Act – Substantive Application, 23 October 2025.</li> <li>WIAL Southern Seawall Renewal: Option Assessment &amp; Design Summary Report. Prepared for Wellington International Airport Limited. Prepared by Beca Limited, 22 October 2025.</li> <li>WIAL Southern Seawall Renewal: Assessment of Effects on Coastal Processes. Prepared for Wellington International Airport Limited. Prepared by Beca Limited, 22 July 2025.</li> <li>Wellington International Airport Limited Southern Seawall Renewal Project - Surfbreak Impact Assessment. Numerical Modelling of Impact on Wave Climate and Surf Quality. Prepared for Wellington International Airport Ltd. DHI Ref. No.: 44802028, September 2, 2025.</li> </ul>

## Comments

### Key issues

1. This is a significant project that will result in the permanent occupation of *ca.* 1.2 Ha of coastal marine area. There will be effects on local coastal processes, but these can be managed with appropriate design.
2. I was looking for assessments that considered any potential changes in and adverse effects from changes in the wave, current and sediment transport regime, both locally and more

widely on Lyall Bay from the seawall upgrade and it was good to see a thorough assessment of environmental effects on these processes.

3. Whilst there will be some effects, I am comfortable that they will be no more than minor and accept the assessments undertaken by BECA, MetOcean solutions and DHI with regards to the waves, currents and sediment transport.
4. There might be a slight increase in wave height (in the order of 10s of centimetres) in certain storm conditions around the seawall, but I consider that it is unlikely this would have much of an overall effect on Lyall Bay beach, for example in exacerbating coastal erosion during storm events.
5. There might be some localised effects on the hydrodynamic currents during larger wave events and storm conditions within Lyall Bay, but they are small and unlikely to have an appreciable effect on associated sediment transport processes or impact on recreational users who are unlikely to be out during those conditions, excepting perhaps experienced surfers.
6. The surfing community has taken a keen interest in works associated with the airport because Lyall Bay is a very popular surfing location for both beginners and experienced surfers, and there are two regionally significant breaks in the Bay – ‘the Corner’ and ‘Airport Rights’, along with popular surf locations in Lyall Bay - ‘western beach’ and ‘middle beach’.
7. Again, it was good to see that a numerical modelling study was undertaken to assess potential effects on the wave climate from a recreational user safety and surf quality perspective for all of Lyall Bay including the Corner and Airport Rights surf breaks.
8. The modelling, across a range of scenarios, indicated no appreciable effects on wave height or quality for Lyall Bay beach, including the Corner and at both western and middle beach.
9. For Airport Rights and noting that this is only generally surfed in optimal conditions by experienced surfers, there may be a slight increase in the height and quality of the breaking wave.
10. I am comfortable with these assessments and that the effects on the wave breaks will be no more than minor.
11. With regards to recreational water user safety, it was found that the impacts on wave induced currents will be negligible to minor, with the potential for a slight localised increase in average wave induced currents to the east of the upgraded seawall, an area that already experiences strong currents, particularly during large wave events. Considering that it is already a

dangerous stretch of coast in these conditions, I am comfortable that this presents no further risk to recreational users than already exists.

12. The structure itself is well designed to accommodate the impacts from large swell, storm surge and storm tide conditions and I am pleased to see that it has accommodated allowances for relative sea level rise, that includes vertical land movements, taking into account upper range IPCC scenarios and MfE coastal hazard guidance out to 2080 (ie, 50 yr design life). Whilst there are less conservative scenarios that could have been used, I consider that the design events are appropriate to protect regionally and nationally significant infrastructure of this importance.
13. It is good to see that the eastern end of the seawall will be extended to cover an eroding section of reclamation that threatens important infrastructure including outfalls and the road and had the potential to outflank and undermine the southern seawall. This erosion has been a response of the shoreline to reach an equilibrium with the wind and wave conditions since it was reclaimed for the runway extension that occurred in the early 1970s and has quite probably been exacerbated by end-effect erosion from wave reflection off the southern seawall.
14. Extending the southern seawall upgrading the protection along this stretch of shoreline has the potential to simply deflect this end-effect erosion further along the beach adjacent the new alignment. In order to minimise these effects, it is important to carefully ‘feather’ the structure back into the unprotected shoreline. It wasn’t clear from the drawings that this was going to be case, which makes it appear to be quite a hard 90-degree juncture that would cause substantial wave reflection and it didn’t appear to be addressed in the report.
15. Further discussions regarding this were had with the applicant and their experts and assurances were given that this transition to the unprotected beach had been considered and would be carefully constructed to minimise these effects. This is one of the main physical effects that may occur to the beach from changes to coastal processes from the project.
16. Thus, it is important to ensure that the eastern end of the seawall extension along Moa Point beach is designed and constructed to minimise end-effects erosion from the structure.

## **Conditions**

17. Annual beach survey monitoring for a period of 5 years, with results submitted to Greater Wellington accompanied with a summary of results to monitor any potential end-effect erosion or unexpected changes in Moa Point beach from the seawall extension, (ie, outside of what might be expected from natural processes). After 5 years an assessment report summarising these findings and making a concluding assessment of any effects that may

have been observed and potential remedial action that could be undertaken to address any adverse environmental effects.