

**BEFORE THE GREATER WELLINGTON REGIONAL COUNCIL AND HUTT
CITY COUNCIL
EASTERN BAYS SHARED PATH PROJECT**

Under the Resource Management Act 1991

In the matter of applications for resource consents by Hutt
City Council under section 88 of the Act, to
carry out the Eastern Bays Shared Path Project

**SUMMARY STATEMENT OF MICHAEL JAMES ALLIS (COASTAL
PROCESSES) ON BEHALF OF THE APPLICANT**

15 December 2020

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I prepared a statement of evidence dated 30 November 2020 on behalf of Hutt City Council ("**HCC**") addressing the effects of the Eastern Bays Shared Path Project ("**Project**") on the environment (such as beach erosion and wave reflections) and effects of the environment on the Project (such as extreme waves or climate change). The key points of my evidence can be summarised as follows.

1. The existing coastline along the Eastern Bays is a highly modified and actively managed shoreline. The underlying geology is of a series of rocky headlands jutting out into Te Whanganui a Tara / Wellington Harbour with sand- and gravel-filled beaches filling the embayments between the headlands, with a thin veneer of coarse sand, gravels and cobbles perched in sheltered pockets on top of the rocky headlands.
2. The construction of Marine Drive with its extensive seawalls, and other coastal structures and reclamations in the area (like Seaview Marina and Whiorau Reserve) have contributed to the highly-modified coastal environment. Over time, the effect of the seawalls and other coastal structures has reduced sediment supply (compared to the natural undeveloped state), caused slow loss of sand volume, reducing beach width, coarsening of beach material and changing of the overall plan shape of the beaches.
3. Many of the existing seawalls are in poor condition, with roughly a third having less than 15 years life left in them, and Marine Drive is well known as an area that will experience flooding and road closures when wave overtopping happens during coastal storms.
4. In terms of the effects on coastal physical processes the key principles to understand are that the existing environment is highly modified, and the small scale and type of change to the existing seawalls. No new areas of seawall are proposed, and all proposed structures are effectively modifications and upgrades of the existing seawalls. The proposed seawalls are also of improved design for wave dissipation and reflection. This concept of small, incremental change translates into most aspects of the coastal processes assessment, and the degree of effects that are anticipated.
5. Beach nourishment is proposed to maintain beach amenity, and provides a small boost to sediment supply at the beaches with the side benefit of a slightly larger erosion buffer.
6. Overall, the construction and operation of the Shared Path will have a *no more than minor effect* on coastal physical processes. This is provided that the

detailed design and construction elements minimise the specific effects within the detailed design and the management plans – which I believe they do.

7. In relation to the effects on the Project, climate change and sea-level rise, and their effect on coastal hazards, are key considerations. Fundamentally, sea-level rise will increase the frequency of wave overtopping and coastal flooding and lead to an increased number of road closures for Marine Drive. Between 2030 to 2040, sea level rise means the present 1 in 100-year extreme storm tide event is predicted to become a once per year storm tide on average. This will result in significantly greater overtopping frequency and more closures of Marine Drive.

8. The Project itself does not provide full protection against storm events now or into the future. The Project does, however, increase the resilience and functionality compared to the existing seawalls and provides a design that can be adapted in future. In doing so, it "buys time" for long-term solutions to be considered and, if required, provides a foundation on which additional resilience measures can be constructed in the future if HCC decides. I note that any decision to increase the crest elevation would require a thorough investigation and consultation strategy for the long-term future of the road.

9. I understand that HCC are embarking on a project to develop such a long-term planning pathway for their coastal infrastructure and communities to adapt to climate change. The Shared Path forms the first step in this journey and does not compromise future options. However, that future community expectations of its performance and "shelf life" will need to be actively managed by HCC.

10. Overall, provided that the design plans are prepared and implemented as set out in the proposed conditions of consent, I am satisfied that the adverse effects on coastal physical processes will be *no more than minor*, and reiterate the positive effects of the Project for coastal resilience and future adaptability to climate change.