

Hearing Stream #5: Natural Hazards

Lisa Caddis - 297 Muritai Road, Eastbourne

Submitters Statement

Proposed Medium Flood Hazard and Medium Coastal Inundation Hazard Overlays at 297 Muritai Road, Eastbourne

I acknowledge Council's response that my original submission has been considered and that the relief sought has been rejected. However, I respectfully submit that this conclusion should be reconsidered considering the further information and analysis that has become available.

My original submission was prepared within a constrained and relatively rushed submission period. Since then, I have had the opportunity to review Council's flood and coastal inundation modelling, the *East Harbour Stormwater Catchment Model Build Report*, the subsequent planning evidence provided to the Hearing Panel, and independent NIWA coastal inundation information.

This further review has identified substantive reasons to question whether the proposed Medium Flood Hazard and Medium Coastal Inundation Hazard Overlays accurately reflect the level of risk at 297 Muritai Road.

My concern is not that Eastbourne has no flood or coastal hazard. Rather, Council has not adequately demonstrated, using property-specific evidence, why the broader hazards identified across Eastbourne justify a Medium classification at 297 Muritai Road.

1. Medium Flood Hazard Classification

The Council's Property Report identifies 297 Muritai Road as being affected by both Low and Medium Flood Hazard Overlays. I respectfully submit that the Medium classification requires specific justification.

Council's own East Harbour Stormwater Catchment Model demonstrates that flood behaviour varies materially between individual properties along Muritai Road. For example, the model predicts flooding at 249 Muritai Road, described as shallow runoff from the hill catchments flowing towards the road and occurring at the front of the property. At 285 Muritai Road, the model does not predict flooding during the February 2004 event, although flooding is predicted for the April 2019 (but did not occur) and 100-year ARI events. At 319 Muritai Road, the model does not predict flooding for any of the modelled events.

These differences demonstrate that flood risk is highly location specific. It would therefore not be appropriate to infer the level of flooding risk at 297 Muritai Road simply from flooding elsewhere along Muritai Road or within Eastbourne generally.

The relevant question is what the modelling predicts at 297 Muritai Road, what causes that predicted flooding, and whether those predictions justify a Medium classification.

2. Property-Specific Validation and Model Limitations

Of particular concern is 297 Muritai Road does not appear to have been identified as a specific validation location in the Council's flood model.

The East Harbour Stormwater Catchment Model Build Report identifies several properties along Muritai Road for which historical flooding information was compared with model predictions, including 249, 273, 285, 319, 347 and 353 Muritai Road. However, 297 Muritai Road does not appear to have been identified as one of those validation locations.

If 297 Muritai Road was not used as a specific validation location, Council should explain what property-specific evidence supports applying a Medium classification to this property, particularly given the materially different modelled outcomes between neighbouring properties.

Council's own report acknowledges limitations in the information available to verify the model. These include interpolated pipe and manhole levels, limitations associated with the LiDAR ground model, the absence of building floor levels, the use of LiDAR-derived cross-sections for many open channels, and the omission of fences and walls that may affect flow paths.

The report states:

"Computational models are only as accurate as the information input into them, and the data available to verify their accuracy."

The report also acknowledges that validation information for the East Harbour catchment is limited, including the absence of flow gauging sites and limited photographic evidence of historical flooding events.

These limitations do not mean the Council's model is invalid. However, they do mean that particular care should be taken when applying a Medium hazard classification to an individual property, particularly where property-specific validation information is limited or absent.

3. The Property's Actual Performance During Significant Rainfall Events

Council's model was validated against significant Eastbourne storm events, including February 2004, October 2009 and April 2019.

The April 2019 event is particularly relevant. Council's report indicates that, based on radar rainfall estimates, this event may have represented a 100-year ARI rainfall event. The report identifies significant flooding at other locations along Muritai Road, including 92, 94 and 96 Muritai Road.

Despite these significant rainfall events, 297 Muritai Road has not experienced flooding.

I acknowledge that the absence of historical flooding does not establish that the property has no future flood risk. However, it is directly relevant when assessing the severity and likelihood of flooding at this particular property.

The fact that 297 Muritai Road remained unaffected during significant historical rainfall events, including the April 2019 event used by Council in assessing and validating its model, should be considered alongside the predictive modelling rather than disregarded.

If Council considers that 297 Muritai Road nevertheless warrants a Medium Flood Hazard classification, it should identify the specific modelling evidence that supports that conclusion and explain why the property's historical performance does not provide relevant evidence when determining the appropriate hazard severity.

4. Climate-Change Assumptions and Council's Current Evidence

There is now an additional reason to question whether the current Medium Flood Hazard classification should simply be treated as settled.

Hearing Panel Minute 12 dated 11 August 2026 identifies the need for further consideration of the climate-change assumptions underpinning Council's flood modelling. The Panel is considering whether a less conservative climate-change scenario should be applied and, importantly, what effect changing those assumptions would have on the spatial extent of the flood hazard maps.

This issue is reinforced by the Statement of Rebuttal Evidence of Stephen Davis dated 12 August 2026. Mr Davis acknowledges that rerunning the flood modelling using the less conservative climate assumptions he recommends would result in a "reasonably significant reduction" in the areas covered by the High, Medium and Low Flood Hazard Overlays.

He also confirms that there is scope within the existing submissions for hazard layers to be reduced in size and/or for particular locations to be reduced in hazard severity.

This is directly relevant to 297 Muritai Road. It indicates that the spatial extent and severity of the mapped hazard are materially influenced by the climate assumptions selected for the modelling.

Mr Davis also acknowledges that the national and regional policy framework does not prescribe a particular climate-change scenario and that selecting the appropriate scenario is ultimately a planning judgement about how conservative it is reasonable to be.

If the underlying climate assumptions remain subject to consideration, and Council's own evidence accepts that alternative assumptions could materially reduce the extent of the Medium Flood Hazard Overlay, Council should explain what property-specific evidence demonstrates that 297 Muritai Road should remain within the Medium classification.

5. Planning Evidence – Nature and Level of Risk

The Statement of Evidence of Philip Alexander Brown is also relevant to this issue.

Mr Brown's evidence recognises that risk should be assessed having regard to the nature, magnitude and extent of the hazard, its anticipated frequency or probability, and the exposure and vulnerability of people, property, infrastructure and the environment.

This is important because the relevant question is not simply whether a natural hazard exists somewhere within the mapped area.

The question is whether the nature, magnitude, extent and frequency of the predicted hazard at 297 Muritai Road, together with the property's actual exposure and vulnerability, justify a Medium level of risk.

In my submission, Council has not adequately demonstrated that property-specific basis for the classification.

6. Medium Coastal Inundation Hazard

There is a separate and significant concern regarding the proposed Medium Coastal Inundation Hazard Overlay.

Council's coastal inundation classification should be supported by clear evidence demonstrating that the property itself is subject to the level of coastal inundation risk represented by a Medium classification.

The independent NIWA National Coastal Flood Maps provide an important point of comparison. These maps do not indicate coastal inundation affecting 297 Muritai Road even under a 2.0 metre sea-level-rise scenario.

I acknowledge that the NIWA mapping is a national-scale screening tool rather than a property-specific assessment and that Council is not required to adopt it. Nevertheless, it represents an independent assessment using current elevation information and coastal inundation modelling.

The fact that NIWA does not identify inundation at 297 Muritai Road even under a 2.0 metre sea-level-rise scenario is materially different from Council's proposed Medium Coastal Inundation classification.

I am not suggesting that the NIWA mapping, by itself, establishes that Council's mapping is incorrect. Rather, the materially different result raises a legitimate question that should be addressed: what specific differences in methodology, assumptions, elevation data or modelling approach explain why Council identifies a Medium coastal inundation hazard at 297 Muritai Road when the independent NIWA assessment does not identify inundation at the property under the 2.0 metre sea-level-rise scenario?

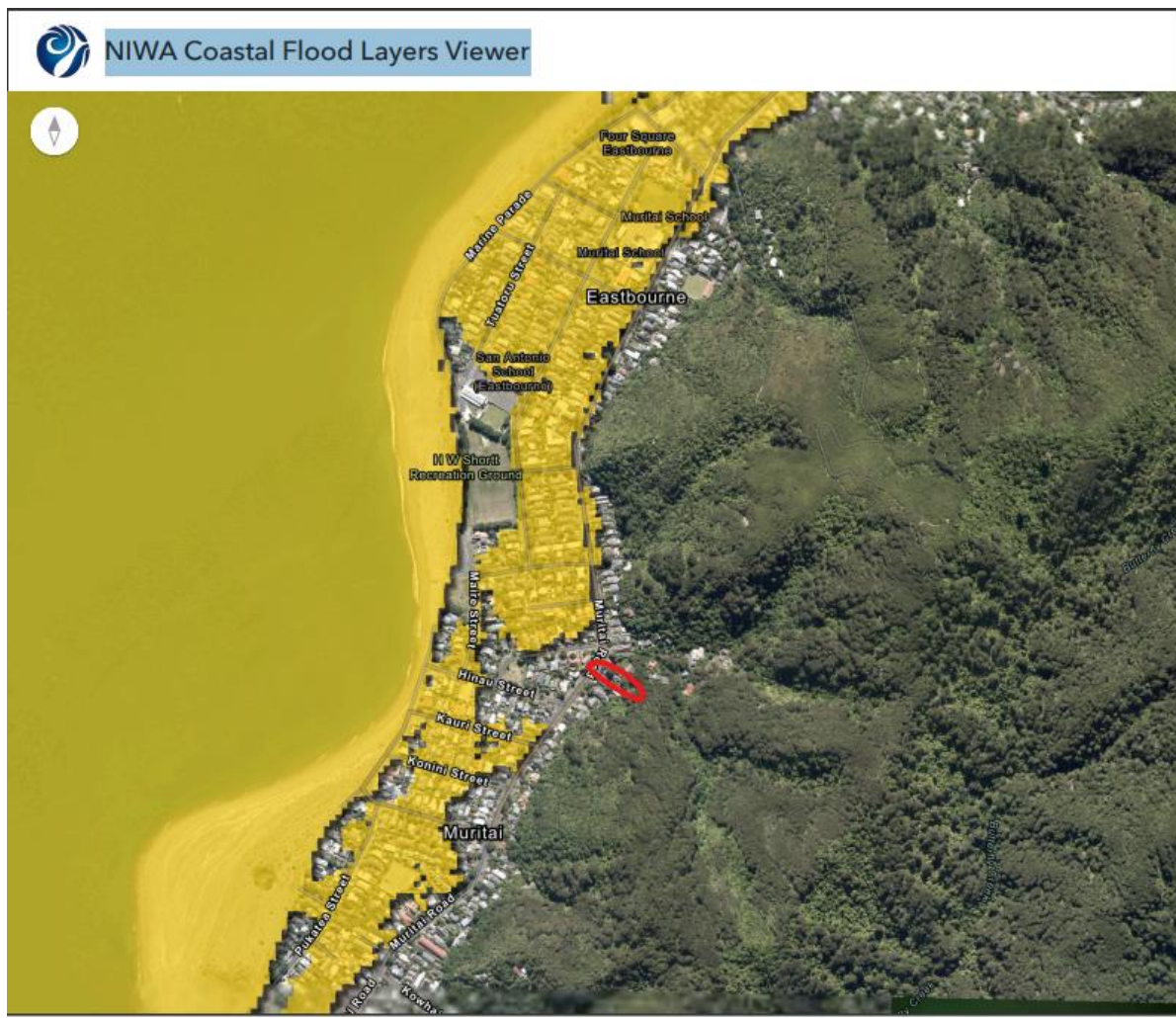


Fig 1. 2.0 metre sea-level rise scenario – red ring is 297 Muritai Road

7. Climate Assumptions and Coastal Inundation

The issue identified by Hearing Panel Minute 12 is also relevant to the coastal inundation classification.

The Panel has identified questions about whether different climate-change assumptions should appropriately be used for different natural hazards, including coastal inundation, and has requested further consideration of the consequences of those assumptions for the District Plan hazard maps.

This is particularly important where the proposed Medium Coastal Inundation Overlay has significant implications for the property owner.

Council should therefore demonstrate that the climate and sea-level-rise assumptions underpinning the proposed Medium Coastal Inundation Overlay are appropriate and that, when those assumptions are applied, they produce a Medium level of risk at 297 Muritai Road.

Where an independent assessment produces a materially different result, the basis for that difference should be transparent and capable of being understood and tested.

8. Overall Assessment

Taken together, the available evidence raises a significant question as to whether the Medium Flood Hazard and Medium Coastal Inundation Hazard classifications accurately reflect the level of risk at 297 Muritai Road.

For flooding:

- Council's own modelling demonstrates materially different flood outcomes between individual properties along Muritai Road;
- 297 Muritai Road does not appear to have been used as a specific validation location;
- Council acknowledges limitations in its LiDAR, infrastructure and validation data;
- the property has not experienced flooding during significant historical rainfall events, including the April 2019 event used in Council's model assessment;
- Council's latest planning evidence acknowledges that alternative climate assumptions could result in a reasonably significant reduction in the extent of the Medium Flood Hazard Overlay.

For coastal inundation:

- NIWA's National Coastal Flood Maps do not identify inundation at 297 Muritai Road even under a 2.0 metre sea-level-rise scenario;
- the Hearing Panel has identified unresolved questions regarding the climate-change assumptions underpinning the hazard mapping; and
- Council has not clearly demonstrated the property-specific modelling evidence and assumptions that reconcile its Medium Coastal Inundation classification with the independent NIWA assessment.

These matters do not establish that 297 Muritai Road has no natural hazard risk. Rather, they demonstrate that there is a legitimate and substantive question as to whether the evidence presently available is sufficient to justify the proposed Medium classifications at this particular property.

9. Relief Sought

I respectfully request that the Medium Flood Hazard Overlay be removed from 297 Muritai Road, or alternatively, reduced to Low, unless Council can demonstrate through robust, transparent and property-specific evidence why a Medium classification is justified.

I also request that the Medium Coastal Inundation Hazard Overlay be removed from 297 Muritai Road, unless Council can provide the specific modelling evidence, methodology and climate-change assumptions demonstrating why a Medium classification is appropriate

when the independent NIWA assessment does not identify coastal inundation at the property even under a 2.0 metre sea-level-rise scenario.

I am not seeking to disregard the genuine flood and coastal hazards that exist within Eastbourne. I am asking that the hazard classifications applying to 297 Muritai Road be based on the actual evidence relating to this property, rather than assumptions derived from broader areas of Eastbourne.

Where Council's own modelling indicates limited flooding, the property has not experienced flooding during significant historical events, the property does not appear to have been used as a specific validation site, Council acknowledges limitations in the underlying modelling, alternative climate assumptions may materially reduce the mapped hazard extent, and independent coastal modelling produces a materially different result, I respectfully submit that the evidence does not presently justify a Medium Flood Hazard or Medium Coastal Inundation Hazard classification at 297 Muritai Road.

Planning controls with significant and enduring implications for a property owner should be based on robust, transparent and defensible evidence. In these circumstances, I respectfully request that the proposed Medium Hazard Overlays affecting 297 Muritai Road be reviewed and amended accordingly.