

PLAN CHANGE 85- MANGAWHAI EAST
SUMMARY STATEMENT OF CRAIG DAVIS (COASTAL HAZARDS)

This summary highlights the key matters addressed in my statement of evidence dated 16 December 2025, Supplementary Evidence dated 30 January 2026 and Rebuttal Evidence 9 February 2026.

RELEVANT SITE FEATURES

1. The site can be considered as two flat terraces, separated from a moderately steep hillside at the south by Black Swamp Creek.
 - a) The first low lying terrace, adjacent to the shoreline on the northern side of the PCA, is at or below RL2.0.
 - b) Inland of this, the second terrace is more elevated at approximately RL4.0
 - c) The raised hillside forms the southern part of the PCA and ground level rises to approximately RL50.0
2. The northern part of the coastline is north or north-westerly facing and the south-western side of coastline is south-westerly facing.
3. The southwestern shoreline now forms the outside of a sharp bend in the river channel flow due to the fixing of the river channel by the Isley Street causeway.
4. The northern shoreline is comprised of an anthropogenically formed bund, approximately 1.5-1.8m high fringed to the seaward by mangroves, with extensive wetland landward.
5. The southwestern shoreline has been armoured with rock riprap and a timber wall at the camp ground.

SEA LEVEL RISE

6. The assessment has adopted the highest recommended scenario for Sea Level Rise per MfE Guidance (2024) and allowed for Vertical Land Movement to determine a maximum future (100yr) inundation level of RL3.7. The current highest level provided for in the Northland Regional Councils Hazard Mapping is RL3.5

INUNDATION

7. The lower terrace is 1.5-2.5m below the inundation level and the upper terrace is above it.
8. A margin on the edge of the upper terrace and along Black Swamp Road requires less than 500mm to address inundation, which considered readily addressed by likely earthmoving at time of development.

EROSION

9. Erosion to the northern coastline is anticipated to be minimal due to the limited wave climate.
10. Erosion of the southwestern shoreline is more associated with the fluvial and ebb tide channel effects. Again, the extent of erosion is likely to be limited. Relatively low-quality simple armouring to this coastline appears to be effectively managing this erosion.
11. The following offsets from MHWS define areas of coastline susceptible to future coastal erosion Hazard:
 - a. 30m offset from MHWS for all shoreline within the PCA, except upstream of the Black Swamp Road causeway.
 - b. 10m offset from MHWS for all shoreline within the PCA upstream of the Black Swamp Road causeway.
12. Existing Esplanade and inundation provisions ensure development will be excluded from these areas.

PEER REVIEW

13. Mr Blackburn generally accepts the findings of the report.
14. There is debate over a minor point whether the adopted Storm Tide Level should be RL1.5 or RL 1.6NZVD. I maintain that the adopted level of RL 1.5m NZVD is most appropriate.

SUBMISSIONS

15. A number of Submitters referred to additional flooding. There is nothing associated with the Plan Change from a Coastal Process or Engineering perspective that will cause or worsen flooding.
16. Sea level of the adjacent Hauraki Gulf forms, effectively, an infinite reservoir at the inundation level. Any connected land below this level will be inundated. The level will not be affected by any additional or decreased stormwater flows.

NPS NATURAL HAZARDS

17. A risk assessment as required by the NPS-NH was completed and the Hazards for the site were found to be Low and therefore acceptable.

REBUTTAL EVIDENCE

18. Two late submissions were received regarding;
 - a) the provision of a Coastal Walkway;
 - b) Existing Consented development by Black Swamp Ltd
19. I consider there to be no particular engineering difficulty in provision of a Coastal Walkway in this area. For example, I would expect it to be considerably more straightforward and cheaper to maintain than the new walkway provided by Kaipara District Council along Molesworth Drive.
20. There is already a walkway, formed by the removal of mangroves and provisions of stepping stones and the like, along this area leading from Riverside Holiday Park. The formation and recent use of this path indicate a current demand. There will be increased demand for this walkway when the Plan Change area is developed.
21. Consented Development by Black Swamp Ltd will not affect the assessed coastal processes of proposed Plan Change Area.
22. Levels within the Consented area can be readily addressed by typical development engineering methods to address inundation levels specified in our report.

CONCLUSION

23. The proposed Plan Change will have negligible effect on coastal processes.
24. Coastal erosion is not an appreciable problem due to;
 - a) A slow erosion rate and large setbacks for the northern Area; and.
 - b) Existing simple protection works and relatively slow underlying erosion rate at the southern end.
25. Coastal Inundation has been conservatively assessed, allowing for future sea level rise and Vertical Land Movement, and provided for by the Plan Change provisions.