

2025/06/11



Whangarei District Council  
Chief Executive  
Mr Simon Weston

Cook Costello  
2 Norfolk Street  
Whangarei 0110

P: 09 438 9529  
E: ccl@coco.co.nz  
W: www.coco.co.nz

Dear Sir,

This memo addresses the risk of flooding on residential properties located at The Landings subdivision, Marsden Point.



Figure 1: NRC Natural Hazards Map with the 100-year River Flood Hazard Map showing in blue.

The NRC Hazard Map, as shown above in Figure 1, highlights many locations within the Landings Subdivision as being inundated during a 100-year rainfall event. However, due to the development and construction in the area, the local topography has changed significantly compared to the terrain used to create the official NRC flood map.

Compared to the terrain data taken in December 2023 shown in Figure 2, we can see that the low points do not correlate at all with the flooded regions from Figure 1. The park areas, which is shown as partially flooded in Figure 1, is significantly higher than the surrounding terrain and therefore would not flood. The flooding does not follow the roads, and some of the ponds are not shown as flooded. The flooding should be found largely in local low points, as the NRC flood map does not show this, we can conclude that the map is out of date.

Cook Costello has created a flood model of the development using the terrain data collected in 2023. The flooded areas during the 100-year storm event are shown below in Figure 3. The flood model and associated report were officially accepted by council after peer review in February 2025.

It should be noted the the new subdivision titles are issued without flooding occurring.

Due to the above reasons, we consider the Cook Costello flood model significantly more accurate than the NRC flood map and the Whangarei Council District Plan, and therefore we advise council to consider it when assessing flood risk within the Landings subdivision over the NRC hazard map.

It is noted that we recommend earthworks on each lot be formed in such a way as to direct stormwater towards the road, to avoid ponding on each individual site.

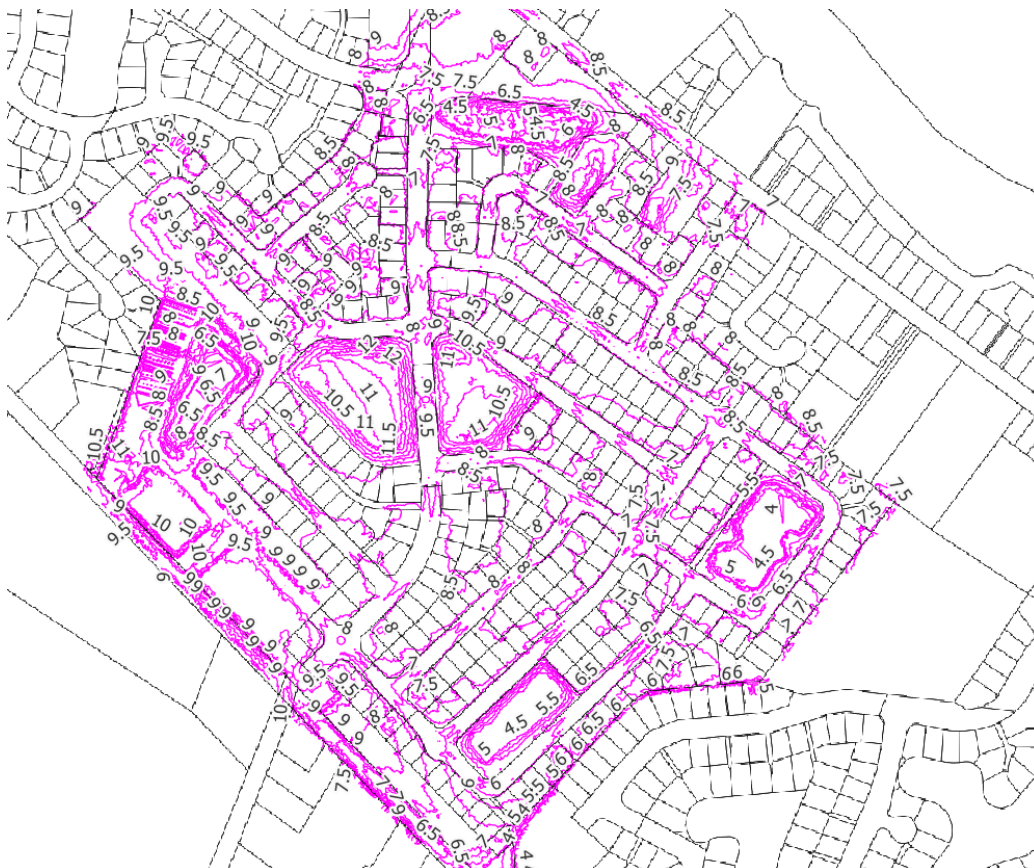


Figure 2: December 2023 Drone LiDAR scan contours.

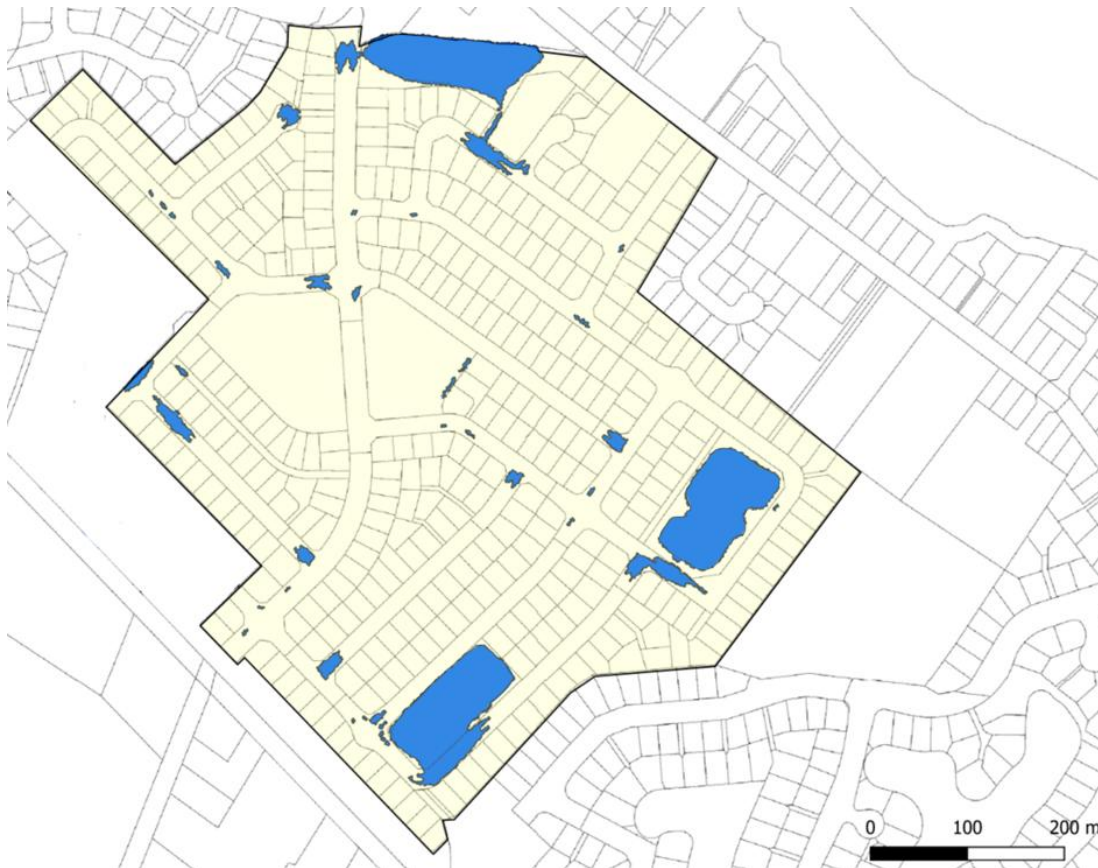


Figure 3: Cook Costello 100-year MIKE+ Flood model. Please note only ponds are flooded and no sections

Please feel free to reach out to us if you have any questions.

Kind regards,

Sammy Musgrave  
Civil Engineer  
BEng (Hons) Civil

PJ Cook  
Chartered Professional Engineer  
MACENZ, CMEngNZ, MInstD, CPEng, IntPE (NZ)  
BE (Hons), Dip Ag.