

To: Chief Executive, Hutt City Council

Via email to district.plan@huttcity.govt.nz.

1. This is a submission from Richard Kelly on the Proposed Lower Hutt District Plan 2025.
2. My email address for service is richard.kelly@outlook.co.nz.
3. I could not gain an advantage in trade competition through this submission.
4. The specific provisions of the proposal that my submission relates to, my submission on those provisions, and the decisions I seek are shown below. I also seek all further, alternative, necessary, or consequential relief as may be necessary to fully achieve the relief sought in this submission.
5. I wish to be heard in support of my submission.
6. If others make a similar submission, I will consider presenting a joint case with them at the hearing.

7. Flood analysis

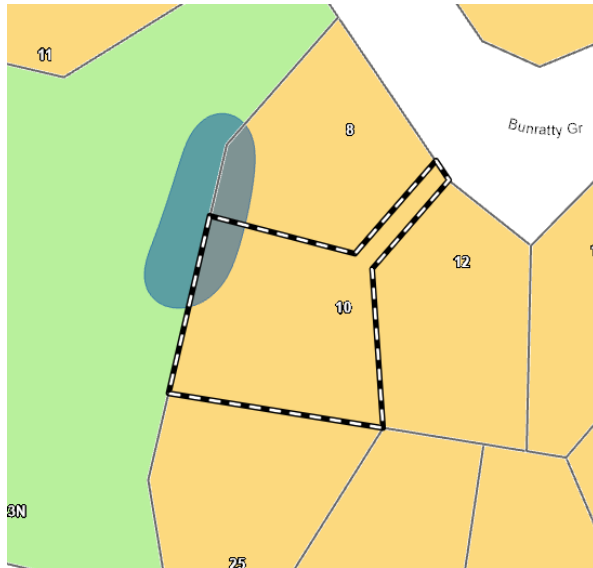


Figure 1

The modelling used to identify a high natural hazard area for proposed district plan must be flawed. The area shown in figure 1 is definitely not a high natural hazard area, is not prone to flooding, has never flooded in the 16 years I have owned the property or indeed in recorded or pre-history I cannot find evidence of a flood in this spot.

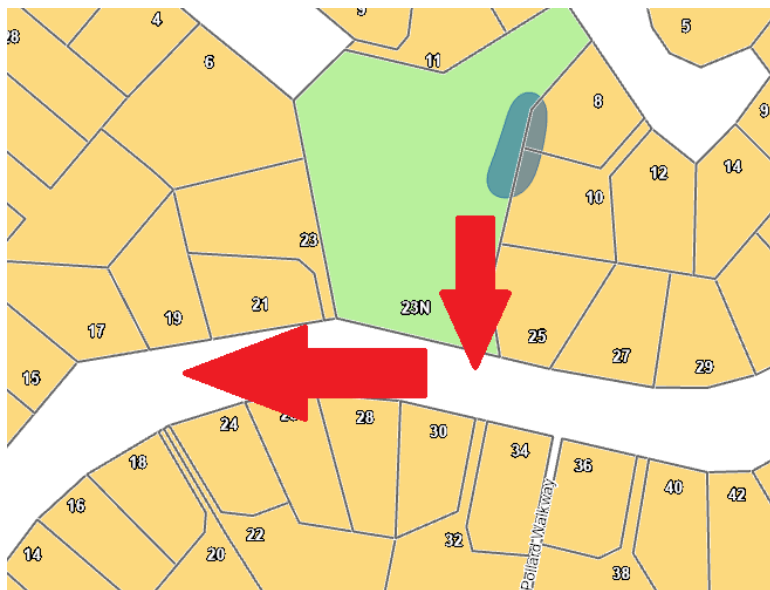


Figure 2

The water can't pool here because there is a downhill slope to Antrim crescent, then a downhill slope down Antrim crescent to Castlereigh Road. While I have had neither the time nor the money to conduct a profile survey, from an eyeball assessment the red arrows represent substantial grades of about 5%.



Fig 3

If you look at the contour map the alleged area prone to flooding is about 106 metres above sea level you can see clearly the grade to the Antrim crescent at 105 metres above sea level, then there is a large drop off as you go down Antrim crescent by the time you get to Castlereigh road you are at around 96 metres above sea level so that's a 9 metre drop off around 230 metres.

So rough calculation –

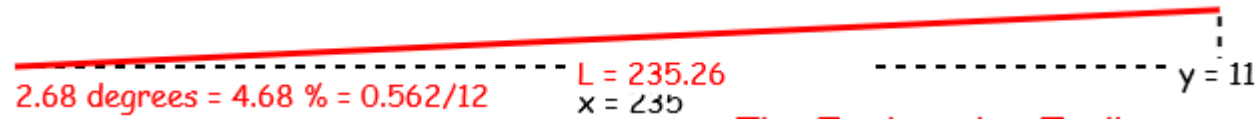


Figure 4

There is approximately a 5% slope, where the water must go, unless whoever was contracted to do this analysis has established that water flows up hill.



Figure 5

As you can see there is a storm water drain grate in the centre of the alleged flood zone, this has never been blocked while I have owned the property. Even if it did block the overflow would go down hill as described above.

As this park was originally graded by the council, if there is a problem and by some breach of the law of gravity it is flooded this would be entirely created by the councils own actions or deterioration or misuse of the storm water system. Even in some strange scenario where some how water is diverted into the storm water system and comes up that storm water grate that would be wholly the Hutt city councils fault.



Figure 6

The storm water drain only starts at the end of Bunratty Grove so it's not possible for enough water to be diverted from somewhere else to that stormwater drain.

Decision Requested

Please remove 10 Bunratty Grove, Wainuiomata from the proposed district plan changes as this is not a high natural hazard area, is not prone to flooding, has never flooded in the 16 years I have owned the property or indeed in recorded or prehistory, this area has never been a flood plain.

This is the response from Alistair Osbourne through Nathan Gerard.

The Tiaki Wai stormwater hydraulic models have been developed using AutoDesk ICM hydraulic modelling software (previously Innovyze ICM). The models are built to the Wellington Water (now Tiaki Wai) Regional Stormwater Hydraulic Modelling Specifications and the Wellington Water Guide for Design Storm Hydrology. This model build process includes model validation, sensitivity testing, community engagement, and external peer review prior to the development of the district plan flood hazard overlays. While Tiaki Wai endeavours to ensure the hydraulic modelling is as accurate as possible, there are limitations that may affect its accuracy. These limitations arise from constraints set by time, budgets, and available information, and they are managed as much as possible by following the modelling process set out above.

The property at 10 Bunratty Grove, Wainuiomata, is covered by the Black Creek stormwater model. This hydraulic model was first built in 2015, prior to the establishment of Wellington Water. It was originally built following the Capacity Regional Stormwater Hydraulic Modelling Specifications, 2013, which preceded the Wellington Water guidelines noted above. Since 2018, the model has undergone several updates, primarily in relation to the hydrology, following the Wellington Water Guide for Design Storm Hydrology, and has been re-validated, presented in community engagement sessions (in 2021), and undergone peer review (see the attached document).

I note Tiaki Wai is currently developing a new stormwater model for Wainuiomata.

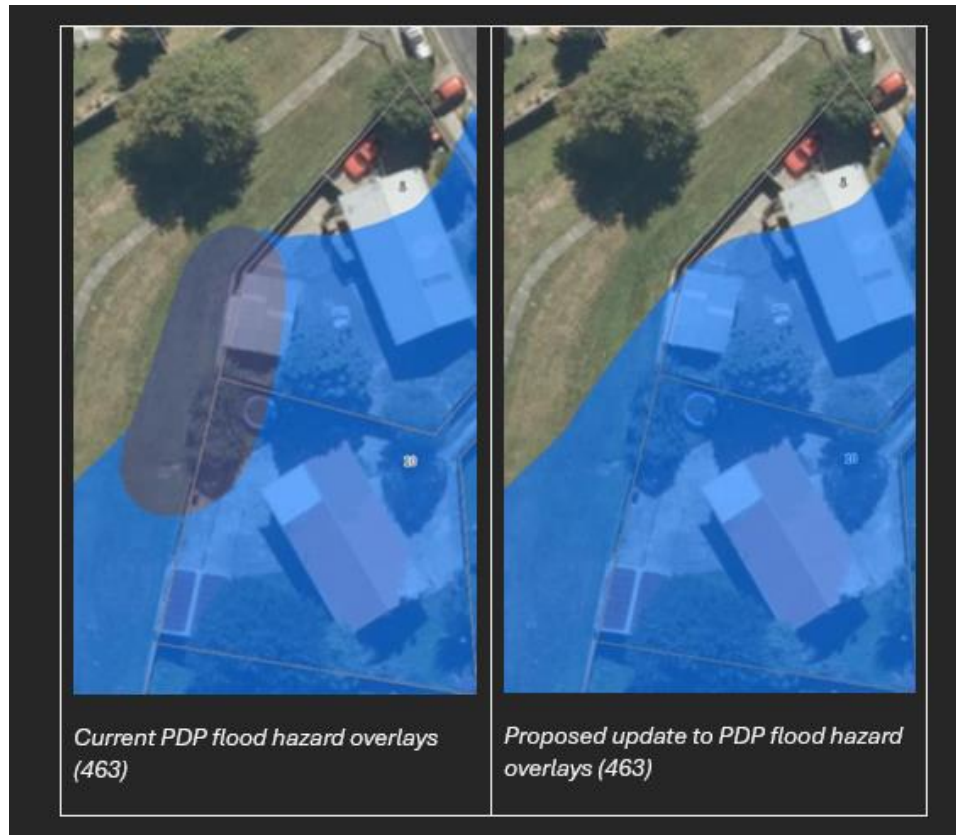
The flood hazard overlays presented in the Proposed District Plan (PDP) have been generated following the Greater Wellington Flood Hazard Planning Guidance document. Alongside the depth and velocity thresholds presented in the Guidance document, stream corridors (High Hazard category) have been manually generated from multiple sources including modelled streams, Tiaki Wai stormwater asset data, and the review of aerial photography. The stream

corridor that intersected 10 Bunratty Grove was generated from the Tiaki Wai asset data, which shows a short reach of stormwater open channel at this location. The detailed, site-specific review, initiated by the PDP submission process, showed that there is not a stream at the location and it does not appear to have historically been a stream, resulting in the recommendation to remove the stream corridor. It is likely the misrepresentation of the channel as a stream was not picked up during the development of the flood hazard overlays because there are multiple short reaches of stream corridor across Wainuiomata and the other HCC catchments, so it would not have appeared as unusual.

This statement is proof that the modelling carried out to arrive at the overlay of the PDP is totally arbitrary and bogus and any flood risk should be removed from my property.

22.75 Richard Kelly (463) - 10 Bunratty Grove, Wainuiomata

- The submitter opposes the flood hazard overlays mapped on their property because of a lack of historical flooding and the representation of a small stormwater drain as being high hazard.
- Section 20.1 provides commentary on the lack of historical flooding.
- I have reviewed the submitter's property in the flood model and the flood hazard overlays.
- The high flood hazard overlay is only present because the short stormwater drain in the reserve adjacent to the submitter's property has been designated as a stream corridor.
- I agree with the submitter that this drain should not represent a stream corridor, and the model results in the area do not reach depths or speeds that would be classified as high or medium hazard as per the hazard classification guidance document.
- I recommend removing the high flood hazard overlay at this location and replacing it with the low hazard overlay.
- Below are images of the current PDP flood hazard overlays and proposed updates relative to this submission.



Low hazard overlay should be removed and replaced with no hazard overlay as in the park next door.