

## **Upper Hutt City Council Proposed Plan Change 42 – Mangaroa & Pinehaven Flood Hazard Extents**

### **Forest & Bird Upper Hutt Branch September 2017**

Chairperson, Mr Mayor & Councillors - Thank you for this opportunity to comment on Plan Change 42.

Thank you for the new documents dated 1 September 2017 which helped to address some of the issues.

The concerns that F&B have in regard to this plan change are that flooding is becoming a more frequent event with the effects of climate change starting to be seen and felt in NZ and overseas. In the last 12 months we have seen many effects of climate change including some major flooding in areas that have had major impacts on people's lives & businesses and the environment. One of the major causes has been runoff from hills because vegetation has been removed. This has silted up waterways that would normally help to dissipate the water in a controlled manner.

Firstly, Mangaroa is a semi-rural catchment and the river follows a natural course with defined natural banks. The river has a large area of catchment and with rural runoff can flood extensively in storm conditions. The natural course of the river can be damaged and neighbouring land flooded. The river course is very narrow and twisting in places, which means that the water flow during flooding can breach the river corridor and this is shown on the GWRC maps.

We thank the council for its funding of riparian planting along the river and hope that this will help with bank retention and water quality in the river.

To lessen the impact of future storm flooding we would like to see vegetation retained on the hills and future development being hydraulically neutral by the limitation of earthworks and the use of peak flow catchment techniques using holding ponds, swales rain gardens, etc to initially delay the discharge and lessen the initial runoff.

The Mangaroa and Whiteman's valley's area is an important semi-rural area for Upper Hutt and needs to be retained as a rural life style area for residents to enjoy.

We would love to see any flood water near the Mangaroa Wetlands used to return the wetland to its original status. This was a one of the largest wetlands in the Wellington area, now lost.

The Pinehaven/Silverstream area is a prime residential area and the potential flooding of residential land is devastating to local residents, having lived in the area during the 2004, 2005 and 2009 floods.

The GWRC maps show the extent of the residential flood. One of the causes of this is the highly modified stream channel restricting the flow and many structures build over the stream channel. This certainly is not capable of handling the 25 year flood flows let alone to 100 year flood flows.

The climate change effects are real and will only get worse in the future.

Again, development on the Pinehaven and surrounding hills will only increase the impact of water run-off and flood risk. The vegetation on these hills needs to be retained to help slow down run-off

and to retain the ecology of the area. Any development that is allowed in the area needs to be hydraulically neutral by the limitation of earthworks and the use of peak flow catchment techniques using holding ponds, swales rain gardens, etc to initially delay the discharge and lessen the initial runoff.

It is recognised that there are varying levels of risk within an identified Flood Hazard Extent. High hazard areas include stream and river corridors, overflow paths, designated building setback areas and erosion hazard areas – These need to be clearly understood by developers, council and residents, with a full evaluation/consultation of the impacts on property and the environment.

We must have planned flood mitigation works within identified Flood Hazard Extents that decrease the flood risk to people and property or maintain the function of the floodplain.

The current available maps do not seem to identify the various flood intensities of the current position verses future flood impacts if development is permitted on the Pinehaven hills ie Guildford Estate. The Council has an obligation to ensure that any future development is not at an unreasonable risk from flooding, and this does seem to be partly covered in section 1.8.11 of “Introduction To The Plan” referring to Specific information accompanying applications for subdivision or development within the Pinehaven Catchment Overlay”.

We need to look at the best means to manage this flood risk in the future.

As a society we have to mitigate the impacts of these events. In an article in the May/June 17 NZ Geographic magazine, on Swimmability of streams, rivers and beaches in Auckland they talk about social and environmental benefits of their waterways and the wish to protect the water cycle in all its pathways through the urban landscape. They talk about a “plea for awareness of the interconnectivity of upstream and downstream, freshwater and salt, city and sea” These are all interconnected and need to be considered in totality, not individually.

They talk about permeable paving, rain gardens, swales, wetlands – all ways to filter contaminants, recharge groundwater and revive streams, while managing storm water flows. Rain gardens not only slow water down, they filter it, and a ‘water-sensitive” city is built on this kind of at-source treatment of storm water. This is a daunting infrastructural challenge, but something serious has to be done to change the current flood water management thinking.

The property and personal damage from flooding is one concern, but there is also a concern for the impact on our environment. The control of floodwater can be used to our personal and environmental advantage.

In a Manukau development they have adopted a “green fingers” approach, where natural waterways and gullies remain vegetated and intact, rather than being scraped, piped, and filled for high-density housing. These water ways become part of the community values, who protect and look after them.

The concept of storm water neutrality means that the inflows and outflows from a hydrological point of view are balanced- this means swales, infiltration trenches, rain gardens and the like – maintaining groundwater levels and slowing down the rapid runoff that causes streams to erode.

Forest & Bird would like to see:

1. The use of hydrological analysis to ensure hydraulic neutrality and the use of modern methods of water control for peak water flows and protection of property and enhancement of the environment.
2. The development of the "Guildford Estate" be put on hold until the public are better informed about the proposal and its impacts residents and on the environment.
3. Silverstream Spur be retained in council ownership and used for the original purpose intended - "best suited to passive reserve uses which would complement the Silverstream beautification reserve and the Keith George Memorial Park and Silverstream scenic reserve". This could include a recreational reserve development.
4. Oppose the proposed land swap of Silverstream Spur for land on Pinehaven hills for recreational development.
5. The other streams and rivers within Upper Hutt included in this Plan Change to enable residents to fully understand the flood water control for the whole city.

**As a society we need to clearly understand the impacts and options for controlling these climate events and look at alternative ways to manage them. The current ways are not working. Maybe we have an opportunity to review our ways of dealing with floodwater in Upper Hutt.**

**Thank you.**