

Tena Koutou katoa
Ko Kathryn Snook ahau
Ko Ngai Tahu te Iwi
No Otautahi ahau
Ko Puharakekenui te awa
Tena Koutou katoa

Submission 031475 on the Application CRC 190445 by Christchurch City Council to discharge water and contaminants to land and water, including coastal water for 25 years.

1. I am representing The Snook Family Trust – Darryl and myself are residents of Brooklands residing at 900a Lower Styx Rd for over 10 years.
2. We have concerns about the impact & monitoring of contaminants both hazardous and sea water within this consent application but due to time constraints I will focus on the impact of the consents water discharge on the Brooklands area.
3. Our main concerns include:
 - The impact of river stormwater causing additional flooding in Brooklands
 - Lack of flooding mitigation within Brooklands due to it being deemed “red zone”
 - Conveyancing capacity of the Styx River and its ability to cope with additional discharge water
 - The validity of the City flood models used to base this CCC application
 - The proposed CCC monitoring processes of the effects of this consent on the Styx River



OUR ZONING – see arial photo

4. Our property is situated on the edge of the residential “Red Zone” (the south side of Earlham St). It was recently rezoned from a ‘Flood Management Area’ to Flood Ponding Management area” in the new CHCH City District plan. Yet our property size is not rural, like many others in the area, therefore we are unable to mitigate for any flooding inundation

900A Lower Styx Road Property Search Results

The information below is relevant to the selected property. Click on the blue text below for more details.

Land Use Zones	Natural Hazard Overlays
<p>Zone</p> <p>RuW Rural Waimakariri Zone</p>	<p>Flood Hazard</p> <ul style="list-style-type: none"> Fixed Minimum Floor Level Overlay within Flood Management Area Flood Management Area Flood Ponding Management Area High Flood Hazard Management Area <p>Liquefaction Hazard</p> <ul style="list-style-type: none"> Liquefaction Management Area (LMA)

This property is on the following planning maps: [6](#)

IMPACT OF EARTHQUAKE & RED ZONE ON BROOKLANDS

5. Acknowledgement by CCC that the earthquake damage and up-river developments have increased Brooklands vulnerability to flooding. Yet no remediation
6. Assumption by CCC that all of Brooklands is ‘Red Zone’ and there is no need to carry out flood protection works. Yet CCC Strategy Maps 2018 promote Strong Communities – safe & Healthy Communities

STORMWATER MANAGEMENT PLAN FOR THE STYX RIVER/PŪHARAKEKENUI AREA 2015 section 4.7.2 –

The banks of the lower reaches / local drains were damaged, evidence of general settlement of land in the Brooklands concerns about vulnerability to storm and tidal flooding. 'red zone'. This reduces the need to further enhance flood protection works along the lower tidal reaches styx River. It also, to some extent, lessens the risk of flood damage from a possible moderate increase in flood level in the Styx River at Brooklands from increased development upstream. “

CCC Surface Water Strategy S26 – Post quake land damage recovery programme has had constraints on funding reducing ability for earthquake remediation.

7. RIVER FLOODING BROOKLANDS 17 JUNE 13







River flooding Wittermans property



8. CAPACITY OF STYX RIVER BANKS



DATE	PROJECT TITLE
Aug - Sept 14	Styx Floodplain Survey CCC 2014
Sept 14	
Sept 14	

Styx Floodplain Survey CCC 2014

Ref appendix A

Cross section 9 – Brooklands 9.61 farm bank 9.42 residential bank with general trend on farm side majority higher than residential side 10.24 farm cf 10.26 residential INSIGNIFICANT

Cross section 10 – Earlham Bridge banks under bridge 10.66 farm bank 10.46 residential bank

Cross section 11 – Spencerville 10.55 farm side range 10.38 to 10.71 road = residential

Monitoring of Styx River

9. We fully support the comments on monitoring & models from **Michael Law S42A Report Flood Risk 28/9/18** and the recommendation for additional monitoring of river levels on the Styx River. I had always wondered the sense in monitoring the levels at Harbour Road as this area is tidal and not significantly affected by rainfall?
10. I would further challenge the CCC allowable increase in 50- year ARI water level of 100 (as the CCC initial application CRC131249 was aiming for 50 and was changed to 100) yet other rivers increase range 0, 30 to 50

Summary:

11.

- Recommend the CCC Consent CR190445 is withheld until the CCC has identified areas subject to flood hazards that will cause risk to human safety or inundation of residential properties as a result of impact of this consent. And the CCC is to provide mitigation
- Once consent granted the CCC are to follow Michael Law recommendations for monitoring & models
- If no action taken and the consent is granted we deem the CCC liable for any damage of our property in the event of flooding that occurs as a result of this consent as we believe they are fully aware of the flooding impact of the consent

Nga mihi nui