

Community Consultation & 1976 Flood

Save Our Hills (Upper Hutt) Inc.

The 1st draft of the FMP was published by the GWRC in 2010.

- This included Item 5: Community Consultation accompanied by Appendix E which included all the comments supplied by residents at a community 'drop in' session held in Pinehaven on 12th September 2009. The information included in Appendix E was not included in the final version of the FMP which was published on 6th September 2016.

GRWC states in item 5.1 that *“over 150 residents took the opportunity to comment and a large amount of detailed information relating to the catchment was collected.”*

- In Appendix E, there are a total of only 96 comments recorded. It is expected that GWRC would have used this event as their primary source to calibrate their maps, but didn't.
- Only 5 comments relate to the 1976 flood, which is regarded as being a 1 in 100 year event.

Within the report, GWRC presents the information gathered through public consultation as being very extensive and helpful.

- In Appendix E, GWRC noted the information provided by residents was useful for informing the modelling work. However, this isn't reflected in the maps. And no consultation after 2010 has had any affect on the flood extents. As confirmed by GWRC to Stephen Pattinson in September 2017, there has been no change to flood extents since 2010.

5.1. Community Consultation

Community consultation provided an opportunity to calibrate and verify the predicted flood extents. The local community proved to be extremely helpful as Pinehaven has numerous long term residents who have experienced a number of flooding events including the flooding in 1976.

The community consultation was undertaken using two methods. At the start of this project in the initial letter drop, information on flooding history and experience was invited from the residents in the Pinehaven catchment. This led to SKM engineers meeting and discussing flooding history with a number of residents, whose local knowledge proved to be very valuable.

A community 'drop in' session was held in Pinehaven on 12th September 2009 where residents had the opportunity to comment on draft flood hazard maps prepared from initial modelling results for the 10 and 100 year storms. Over 150 residents took the opportunity to comment and a large amount of detailed information relating to the catchment was collected. Where applicable this information was used to enhance the hydraulic model and assist in the mapping of the flood hazard. The overall consensus of the residents was that in general the predicted flooding extents matched closely to what they had previously observed and experienced. This endorsement adds further



confidence to this investigation, confirming the close match between the model and historical flooding.

Figure 15 Photo from the community consultation drop in held on 12th September 2009

SINCLAIR KNIGHT MERZ

“...including the flooding in 1976”

APPENDIX E



Sample of community consultation ...

(from Appendix E)

Control of logging key to protecting from blockage debris flow
Control logging slash thrown into gullies - hillside water channels to be kept clear, even minor ones

My road isn't cleaned often enough - blocked sump x2

Dec 1976. Trees felled on the hill between Pinehaven + Elmslie Rd

Top of Elmslie , trees cleared, lots of debris

Can we put this plan in the library

KEY

1 Information that will impact on the modelling work (Total = 24 comments impact on modelling)

113 Pinehaven Rd. water runs across W side of section . E channel of road inadequate gullies. Creek capc ok 76,81,89,98 & 2009.

[John Christianson – Civil Engineer – 113 Pinehaven Road]

“Take care that extents are accurate”

The very first comment in Appendix E (Public Consultation):

“Take care that when these maps are converted into district plan (if ever) that flood extents are very accurate e.g. @ 126 [Pinehaven Road] house is shown as within flood extent, however is over 3m above top of stream banks (don’t think stream would reach this high!)”

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GWRC and UHC have produced at least 60 different maps in

- 2010
- c.2012
- c.2014
- 2016 &
- Twice already in 2017

The proliferation of maps have

- caused confusion
- One thing has remained constant - the overall flood hazard extent

Few in the community understand that the flood maps include:

- Less than 100mm due to climate change
- Blockages that assume all the 1980's drainage improvements were useless, and
- 300-500mm freeboard coloured blue and referred to as 'water'

Index of Eyewitness Accounts

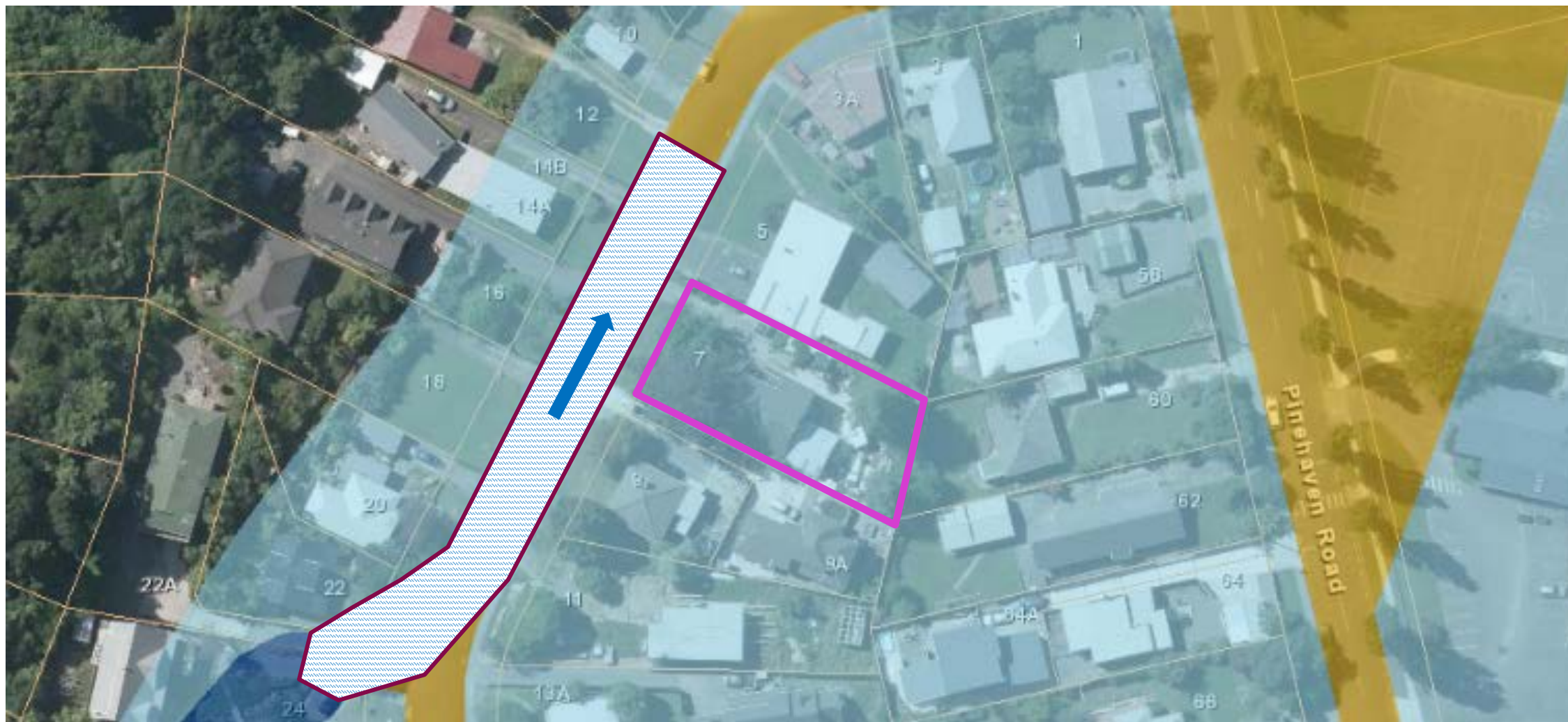
10 accounts from residents about the extent of the 1976 flood

the addresses are where these residents were living in 1976; their accounts are of the flooding around their properties

- ▶ **Colin Buckett:** 7 Jocelyn Crescent, Pinehaven, Upper Hutt
- ▶ **Paul Cocker:** 16 Jocelyn Crescent, Pinehaven, Upper Hutt
- ▶ **Keith Thomas:** 44 Whitemans Road, Silverstream, Upper Hutt
- ▶ **John Campbell:** 2 Harewood Grove, Pinehaven, Upper Hutt
- ▶ **Barry Yandel:** 26 Fendalton Crescent, Pinehaven, Upper Hutt
- ▶ **Keith Hamilton:** 27 Pinehaven Road, Pinehaven, Upper Hutt
- ▶ **Ray Watson:** 3 Birch Grove, Pinehaven, Upper Hutt
- ▶ **Brian Rickerby:** 9 Winchester Ave, Pinehaven, Upper Hutt
- ▶ **Kate Turner:** 107 Pinehaven Road, Pinehaven, Upper Hutt
- ▶ **Kevin Keown:** 138 Pinehaven Road, Pinehaven, Upper Hutt

Colin Buckett

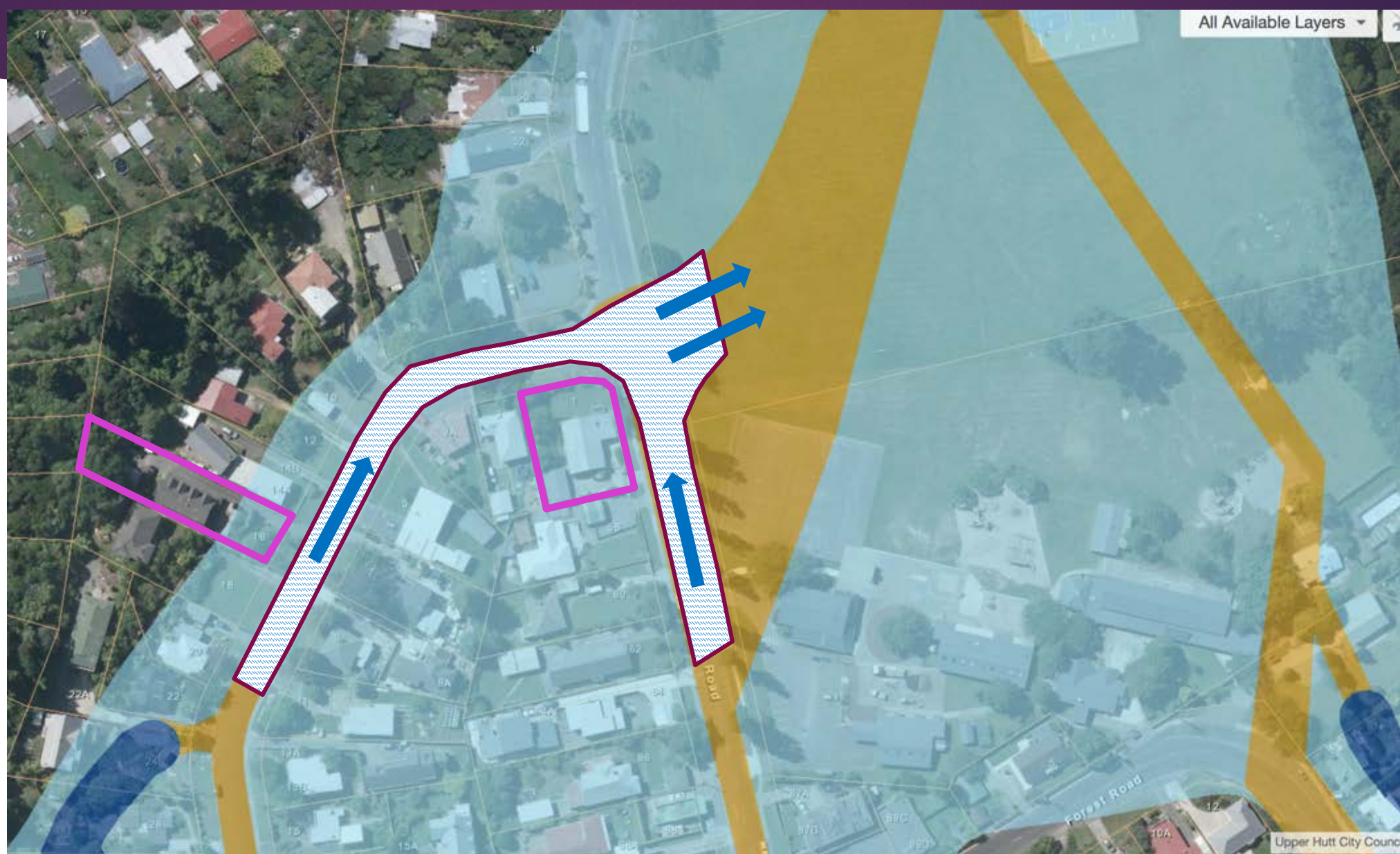
7 Jocelyn Crescent



*“We were here in the Pinehaven flood [in 1976]. There was about 6 inches of water in the middle of the road. At **no** time did the water enter my property.... during the day people were quite able to drive down Jocelyn Crescent.”*

Paul Cocker

16 Jocelyn Crescent



Paul: the flood water came along Pinehaven Road and down Jocelyn Crescent where it then spilled onto the Reserve. My parents were living on the corner at No.1 Jocelyn Crescent and the floodwater did not go onto their property at No.1

Keith Thomas

44 Whitemans Road



“We were concerned whether the water would come inside..... Over the length of the house the land rises by 280 mm so an estimate can be made that the water was 420mm at the gate.... The flood plan blue shaded area runs to the rear of the section behind our house. If this is water level then the water height at the gate would have had to have been 1120mm (1.12m).”

Dunns Street

Silverstream

1.10

Silverstream Flood 1976 Photo 2



DETAILS

Description

Flooding in Silverstream, 1976

The January 18, 1977 'Leader' printed six pictures, and gave the main day of the storm as December 20.

Date Taken

December 23rd, 1976

DEPICTS OR RELATES TO

Place

[Silverstream](#)

Subject

[Floods](#)

PART OF

Collection

[Weddell, Howard](#)

John & Angela Campbell

2 Harewood Grove

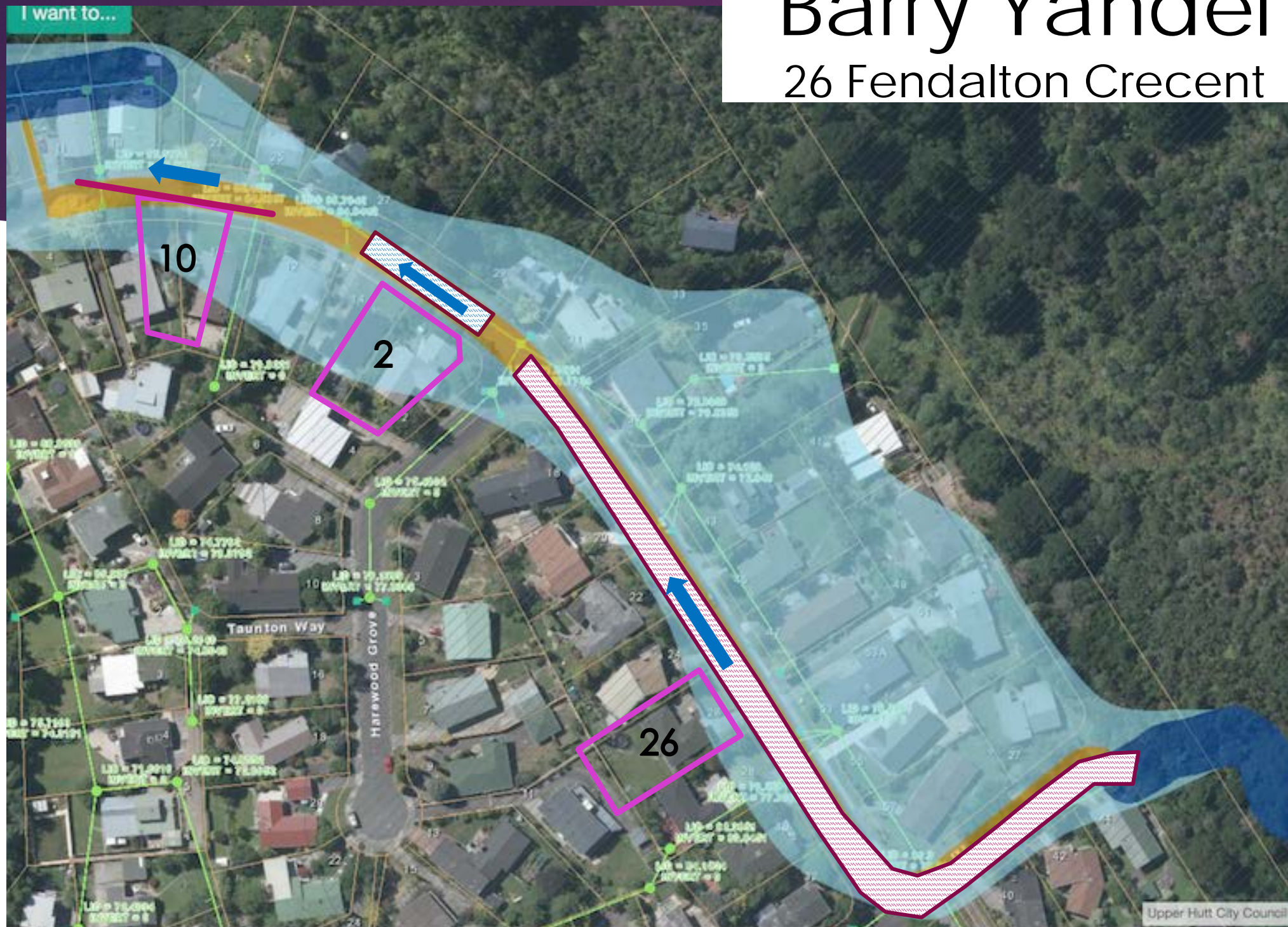


“... the kitchen windows look out onto Fendalton Crescent ... my wife and I watched from our kitchen window while water rushed down the road. The water covered the entire width of the road and was flowing swiftly but remained within the road width and did not come over the footpath.”

Barry Yandel

26 Fendalton Crescent

1.12



“There was minor flooding from the culvert at the end of Chichester Drive, however this handled the water fairly well ... the culvert did not get blocked ... Some water came down Fendalton Crescent ... mostly on the far side of the road but not going on to the properties of the other side of the road. #26 was safe [water didn’t come onto the property].”

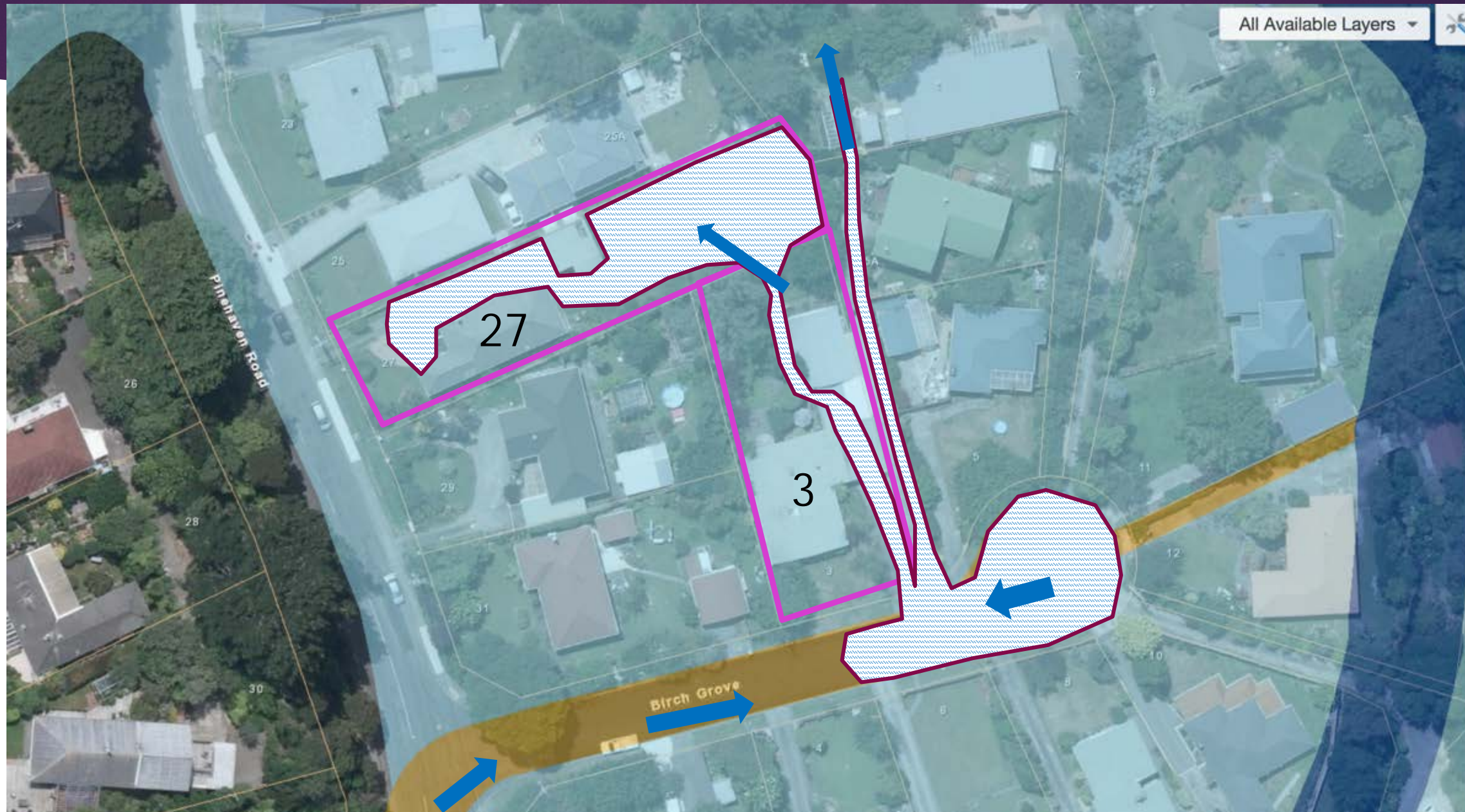
Keith Hamilton

27 Pinehaven Road

Ray Watson

3 Birch Grove

1.13



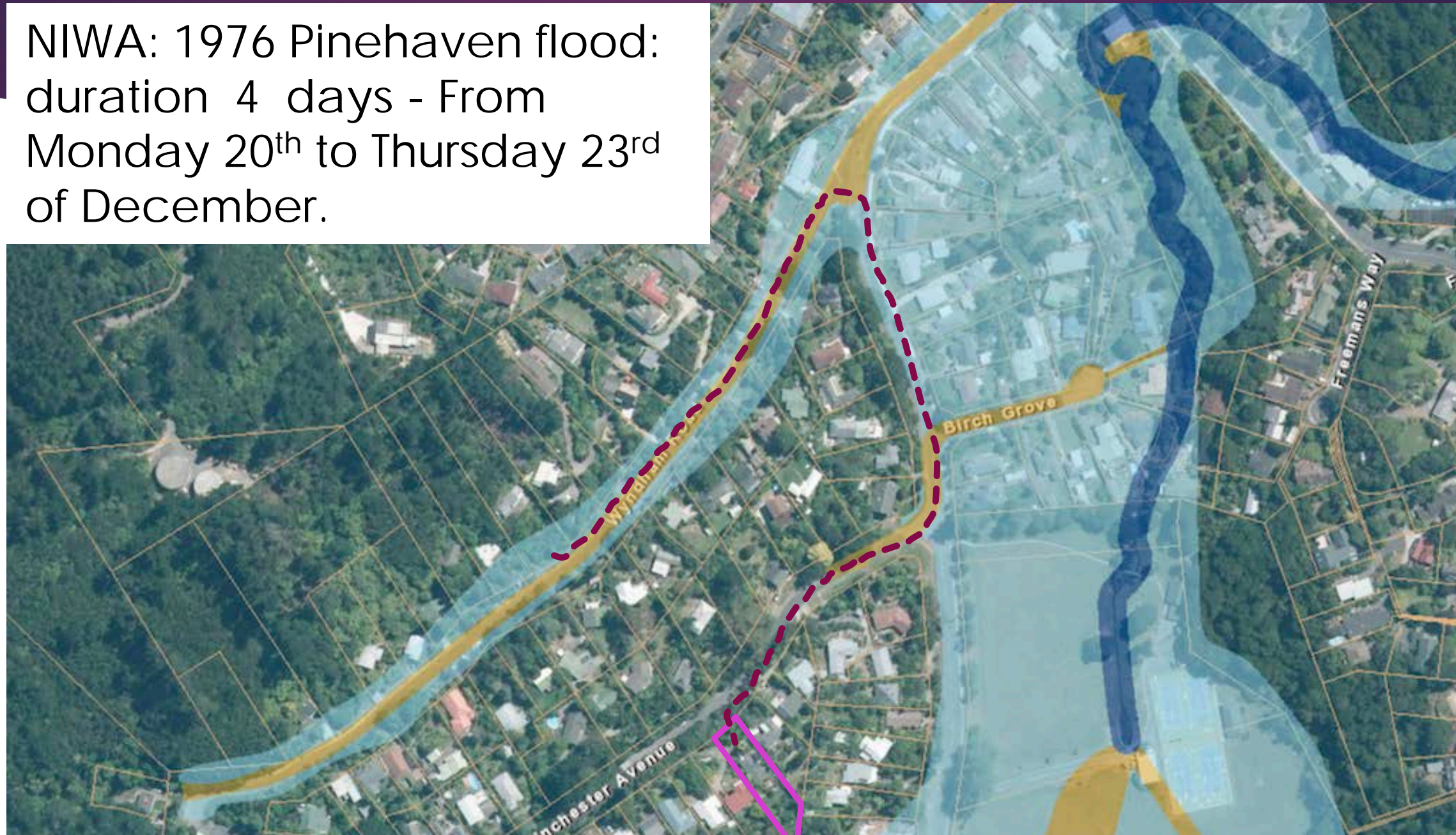
Keith (#27): “No water came down Wyndham Road or off Pinehaven Road into my property. It came through the back fence from Ray’s place (#3).” Ray (#3): “The water from Pinehaven Rd came on the other side of Birch Grove. But most of the water was backing up from the creek into Birch Grove. It didn’t go on my front lawn but along the drive and through the back fence.”

Brian Rickerby

9 Winchester Ave

1.14

NIWA: 1976 Pinehaven flood:
duration 4 days - From
Monday 20th to Thursday 23rd
of December.



“On Sunday (19th) I took some boys tramping on the ridge... the rain started in the late afternoon ... and continued raining heavily all night. [Monday] I helped an old fella up Wyndham Road ... I walked there and back ... there was surface water on Wyndham Road but it wasn't flooded, I was able to walk up Wyndham Road without any difficulty.”

Kate Turner

107 Pinehaven Road

1.15



“Because our home is slightly elevated, no water came into it. The water didn’t reach the base of our home because the garden has a gradient and the house has steps up to the doors.”

Yellow Means What ?

1.16

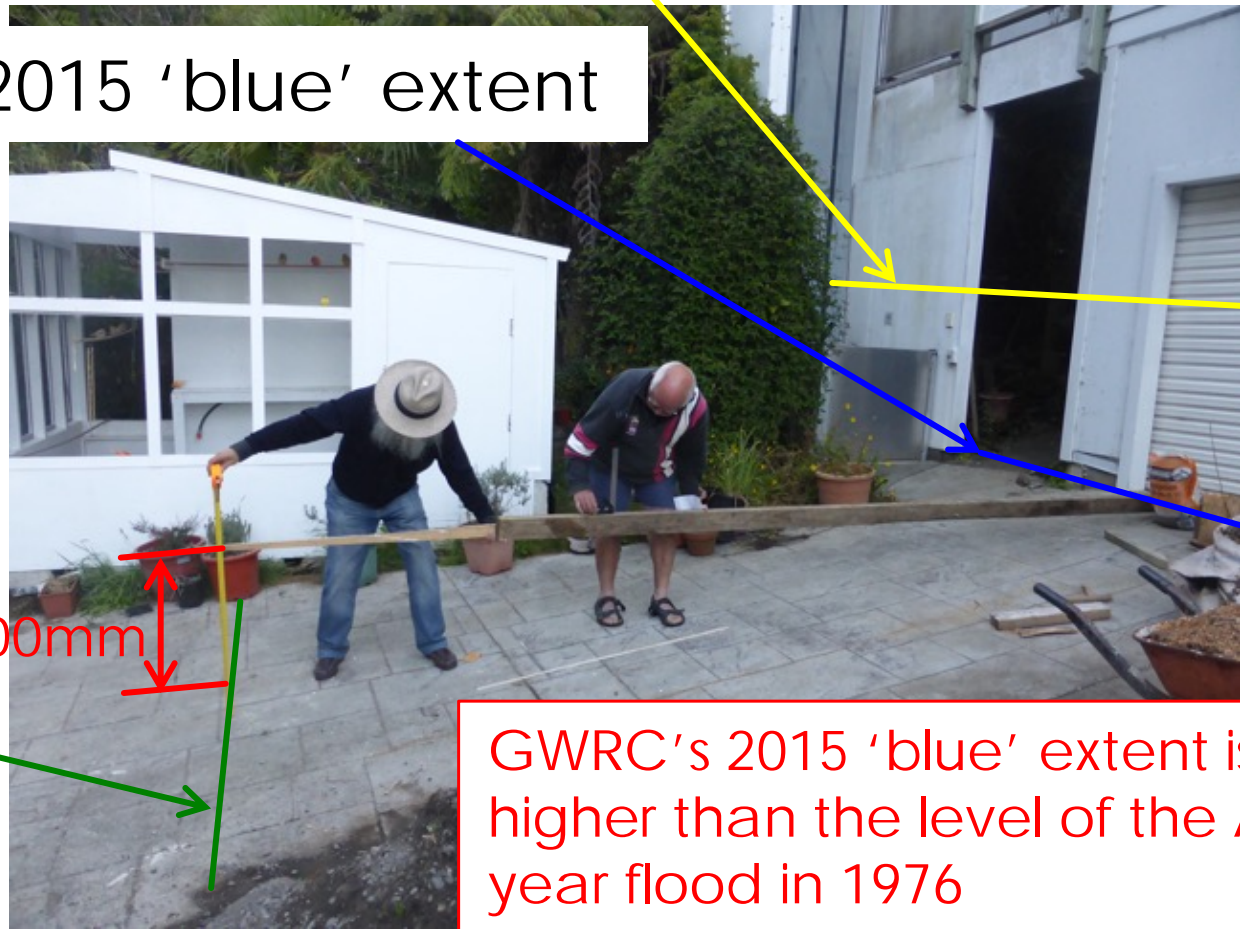
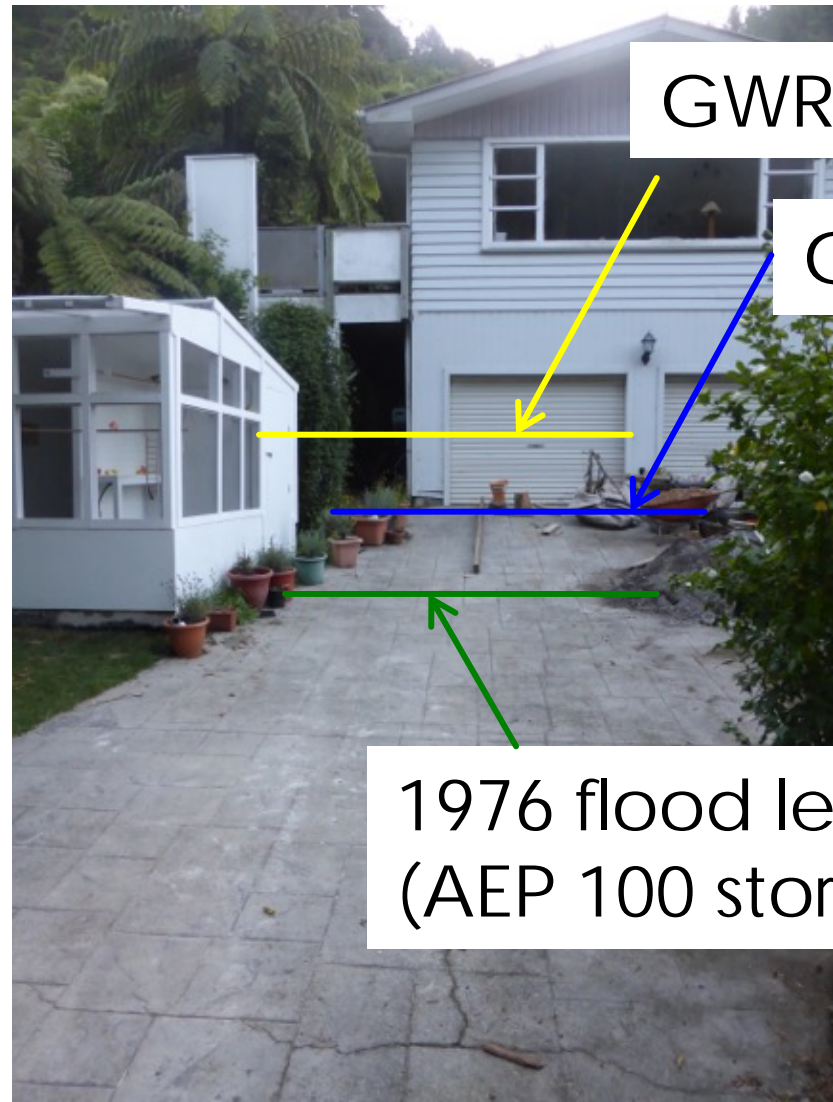
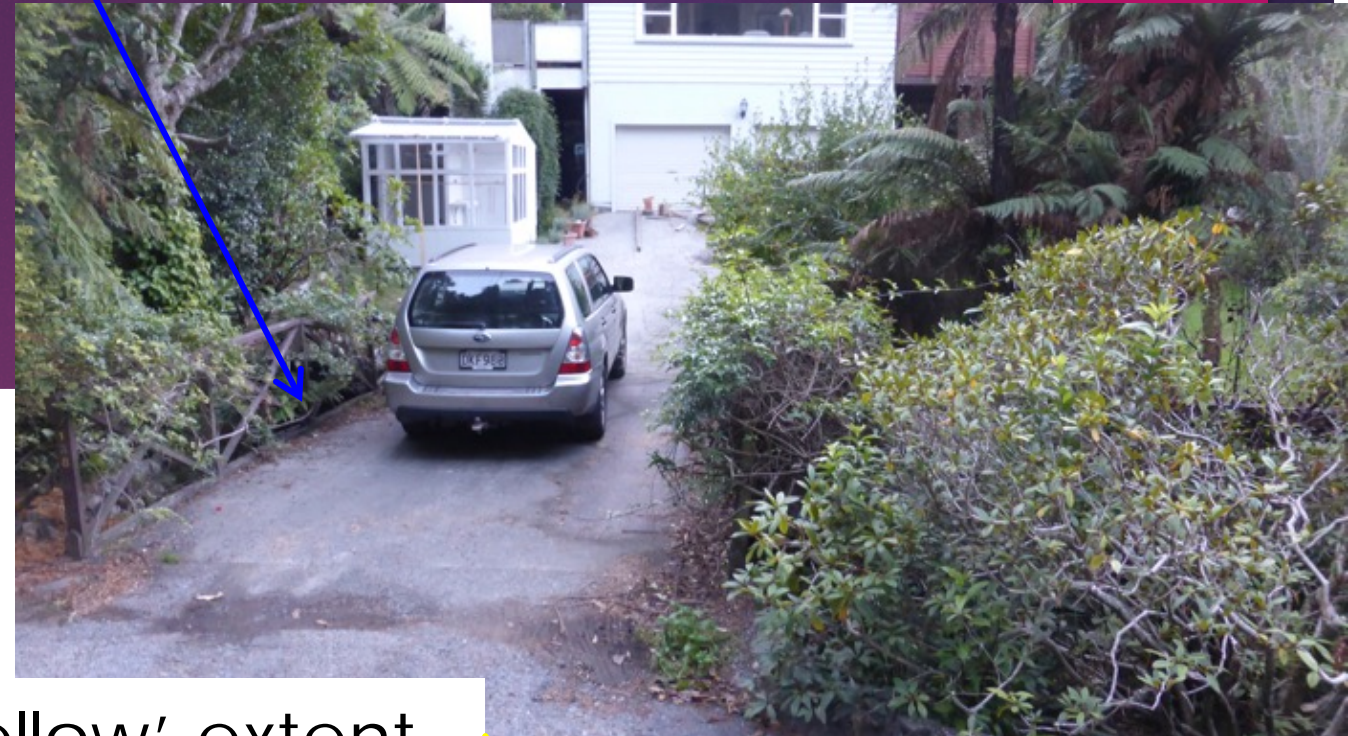
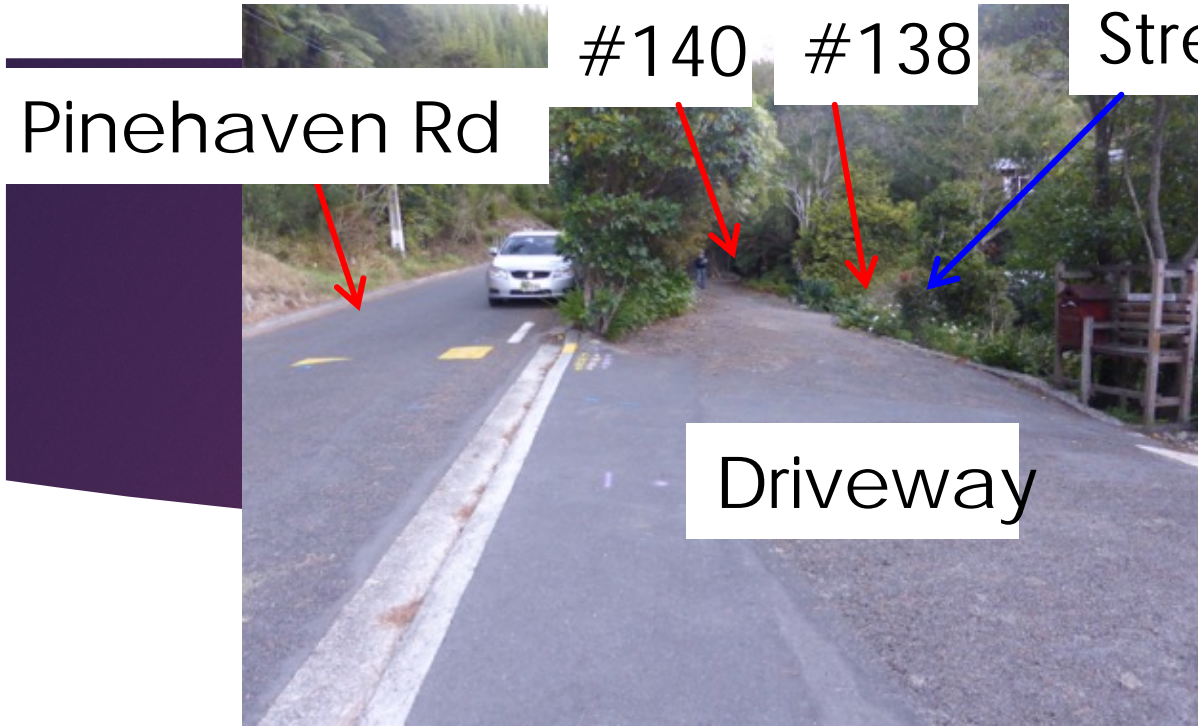




Pinehaven Road
June 2010 Map (GWRC)



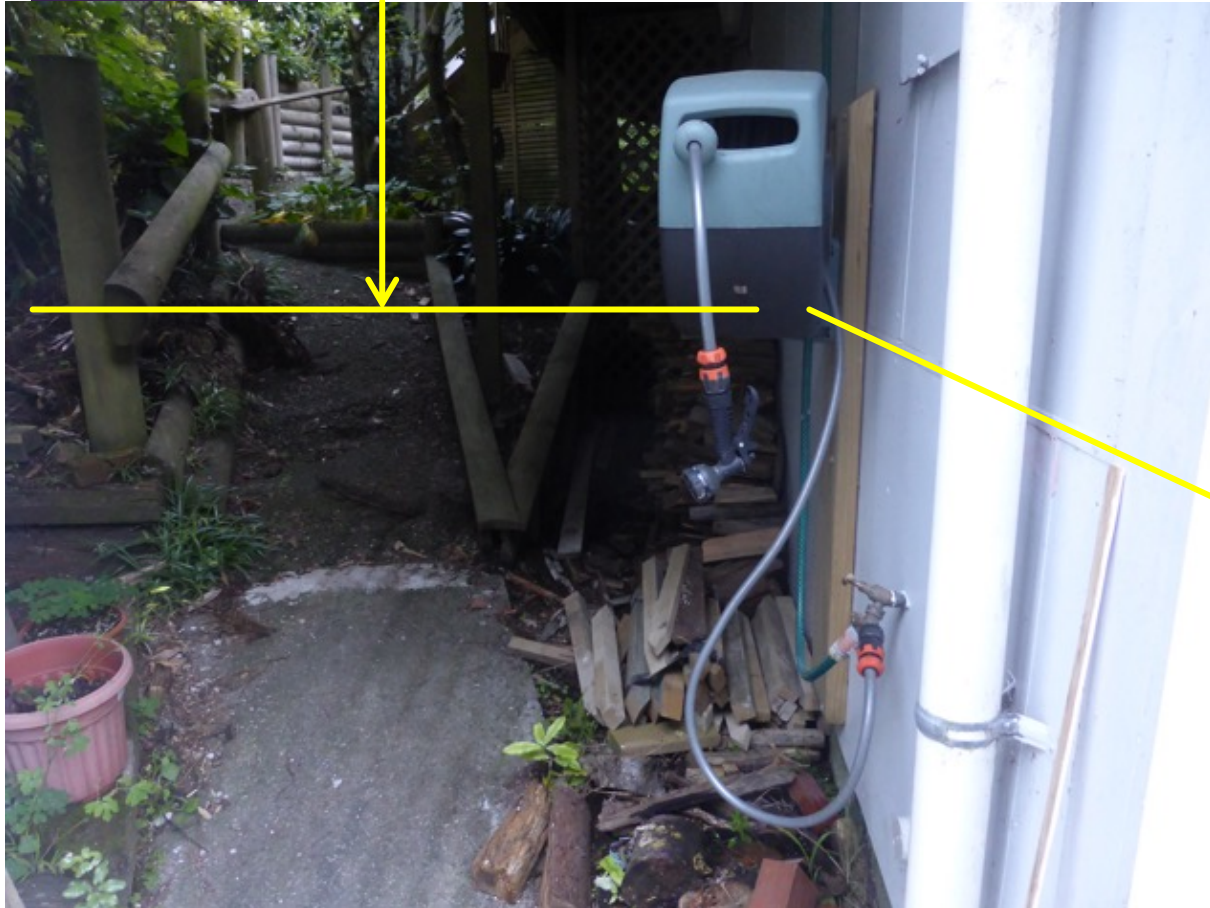
Pinehaven Road
Sept 2015 Map (GWRC)



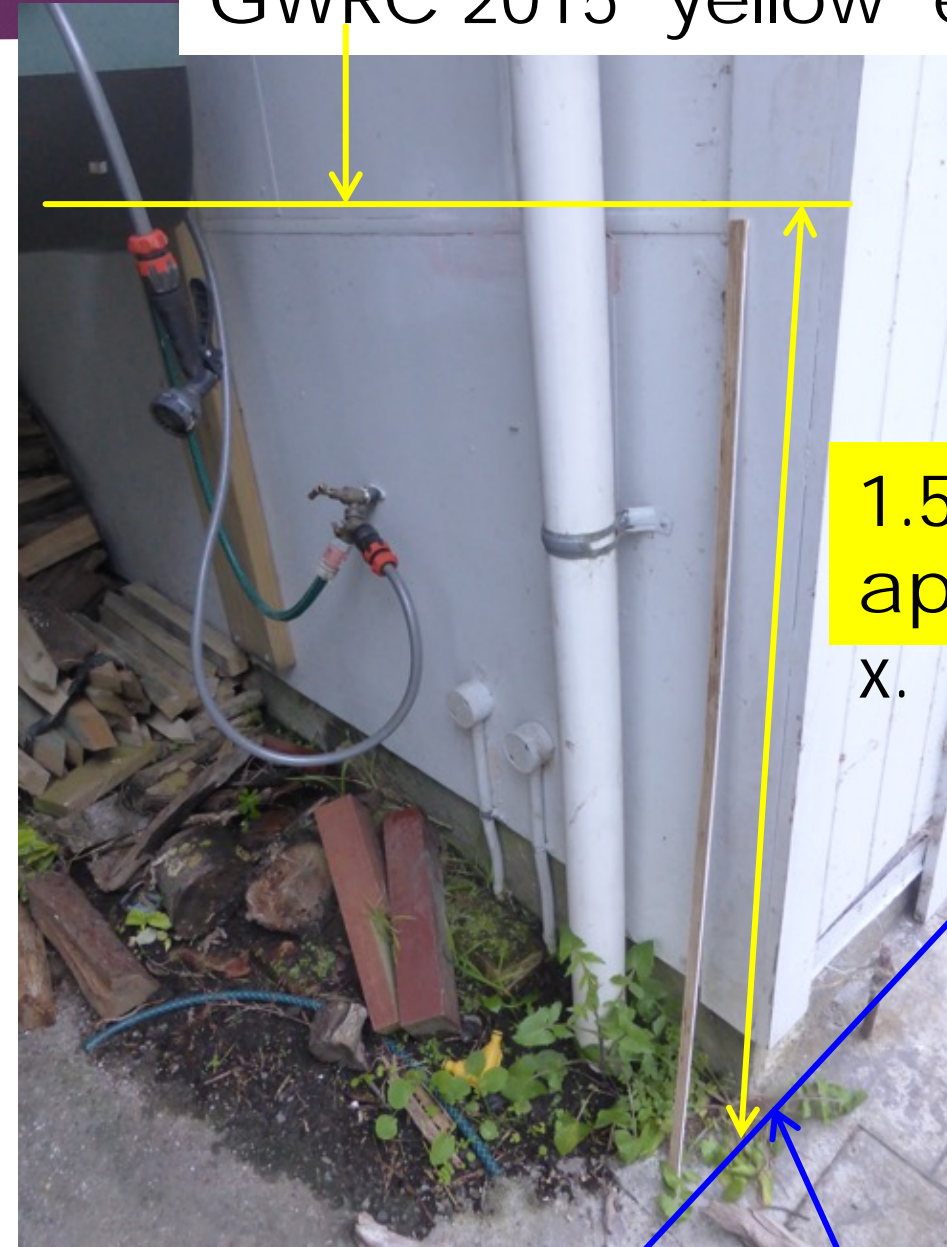
GWRC's 2015 'blue' extent is 700mm higher than the level of the AEP 100 year flood in 1976

GWRC 2015 'yellow' extent

1.19



GWRC 2015 'yellow' extent



1.5m
approx
x.

GWRC 2015 'blue'
extent

- The map legends say yellow is "flood sensitive area". What does that mean?
- Alistair Allan (GWRC) said it is freeboard.
- Why is freeboard 1,500mm (1.5m)?
- We asked the GWRC Hearing Panel for a further independent review, because GWRC's revised 2015 flood maps do not make the flood situation any clearer than their 2010 flood maps. Instead we got sham Focus Group meetings and seven more useless flood maps!

Kevin Keown

138 Pinehaven Road



Statement from Owner of 138 Pinehaven Rd:

Resident of #138 since 1967

“In my view the flood maps are inaccurate to a fasical (sic) degree and a review should be undertaken in the near future, with an early outcome.”

Kevin Keown

Expert Garbage In .. Expert Garbage Out

Expert Michael Law explains why “the modelled flood hazard area ... extend[s] well beyond the 1976 flood extent”

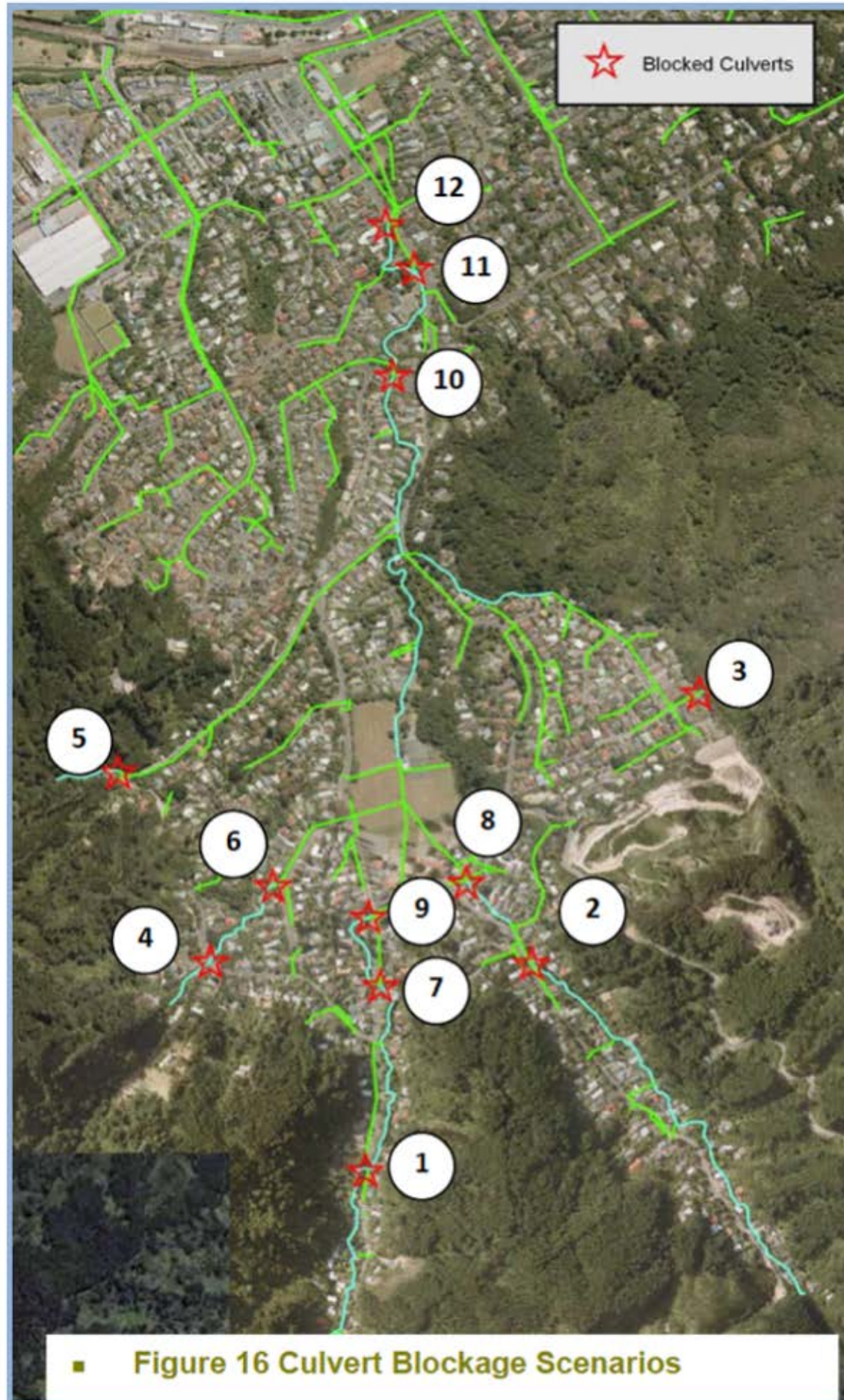
(s42A report, App. 7, p12 par. 50):

Michael Law says the flood maps are “well beyond the 1976 flood” because of:

1. “adding ‘freeboard’ to the mapped flood extents”
2. “the allowance for climate change” and
3. “assumptions about culvert blockage”

Garbage

Assumption 1: Culvert Blockage



Assumed 100% blocked:

600 - 1200 dia. ... 2, 3, 4, 5, 6, 7, 8, 9

Assumed 50% blocked:

1800+ dia. ... 1, 10, 11, 12

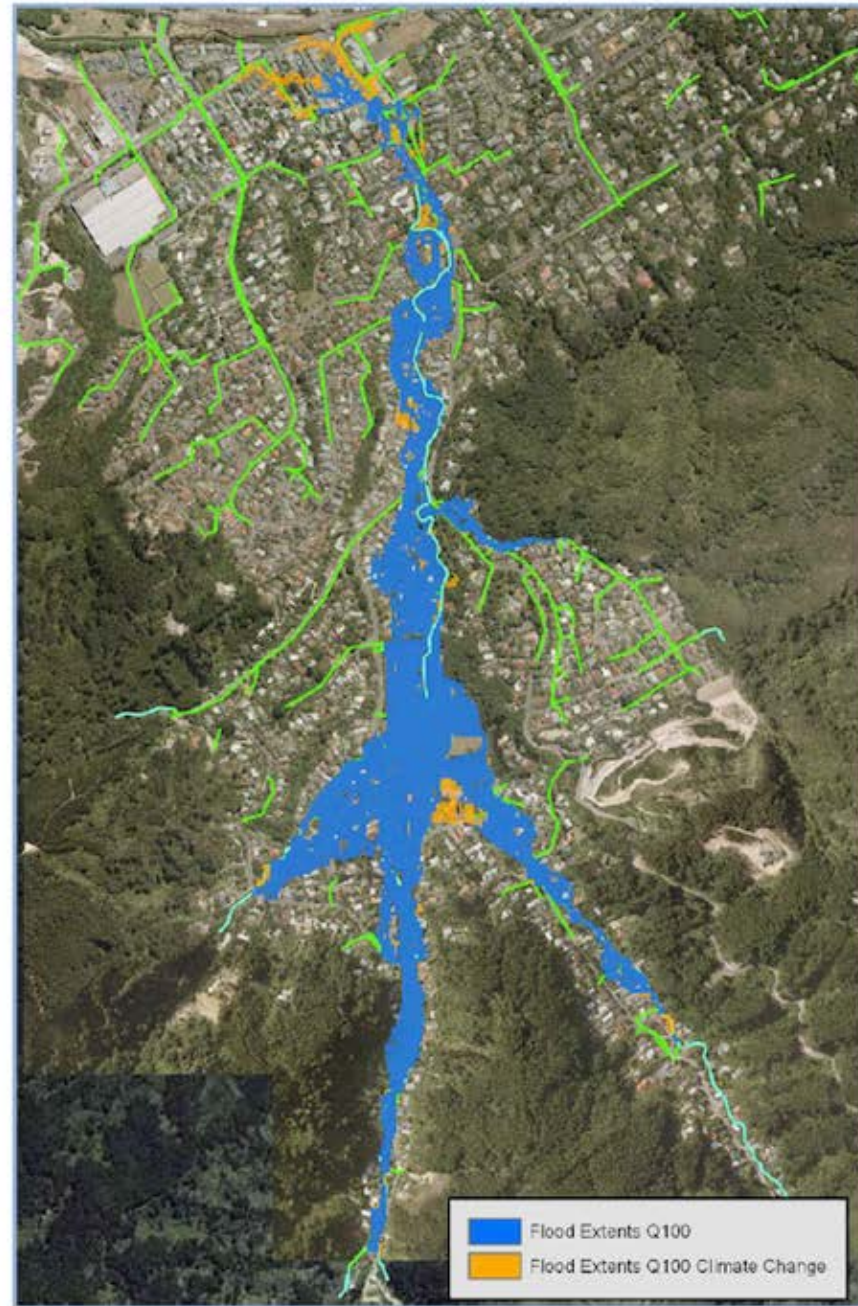
It is improbable there will be this much blockage every time there is a 100 year storm. Besides, even Michael Law concedes that "debris blockage is considered a factor during the 1976 event".

The upgrades in the 1980s mean there is likely to be less blockage in the next 100 year storm

Garbage Assumption 2: Climate Change Scaremongering

6.2. Predicted Impacts of Climate Change

Climate change was considered for the 100 year storm hydrology in this investigation. For details on how climate change was taken into account in the hydrology refer to section 3.2 of this report.



The flooding extents associated with the 100 year storm are overlaid with the flooding extents of the 100 year storm including the predicted impacts of climate change in Figure 18. From this comparison it can be seen that climate change does not significantly increase the extent of the flood hazard in the Pinehaven catchment. The steep topography of the catchment appears to constrain overflows resulting in the only real difference being observed in the lower catchment where the Pinehaven valley opens out onto the Hutt River floodplain.

Modelling indicates that the predicted impacts of climate change are likely to result in less than 100mm increase in inundation depths across the majority of the Pinehaven catchment.

Figure 18 Comparison of Flooding Extents for Q₁₀₀ vs. Q₁₀₀ including Climate Change

“Modelling indicates that the predicted impacts of climate change are likely to result in less than 100mm increase in inundation depths across the majority of the Pinehaven catchment.”

So don't be fooled into thinking climate change is going to add a one metre rise in the Pinehaven Stream ...

Climate change adds less than 100mm!

8.3. Freeboard

When setting levels for development it is best practice to add a freeboard margin to the levels derived by the analysis. Modelled top water levels (TWL's) plus a freeboard allowance make up the given plan levels, designated as Recommended Building Levels (RBL's). The freeboard covers such variables as:

- Data limitations and modelling approximations
 - Parts of the stream and floodplain are modelled by only a limited amount of survey information, e.g. limited LIDAR information.
 - Availability (or lack) of historical runoff records.
 - Storm runoffs are derived based on assumptions as to rainfall patterns, ground soakage and saturation.
 - Assumptions as to hydrograph shape.
 - Assumptions as to ground and channel roughness.
- Physical considerations
 - Wave action caused by wind or motor vehicles.
 - Silting of the stream or debris or slips occurring during a storm which may affect channel capacities.
- Effect of obstruction on flows
 - Buildings need to be adequately above water levels so that obstructions to moving water do not cause local waves and resulting ingress. This is of less impact in large ponding areas than in sloping, high velocity flow areas.
- House construction limitations
 - If water gets to within 100 to 150 mm of a slab or timber framed floor over any length of time water can be absorbed into the structure enough to cause flooring problems (e.g. carpet damage).
- The economic and social impact of water ingress
 - The freeboard would normally be set higher where a large number of high value improvements are affected.

As part of this investigation the following sensitivity analysis have been completed to determine appropriate freeboard allocations for the Pinehaven catchment:

- Blockage scenarios
- Extreme rainfall scenario
- Varied tailwater conditions

Garbage Assumption 3: Freeboard is needed on puddles

You DON'T need
300mm freeboard
on a puddle!

In a later
presentation SOH
will show how
GWRC, UHCC and
their consultants
have added
300mm freeboard
to puddles all over
Pinehaven and
Silverstream,
exaggerating the
flood hazard!

Conclusions

- ▶ Community consultation has been a box ticking exercise only – local knowledge has been disregarded
- ▶ GWRC's flood maps (and therefore UHCC's proposed flood hazard maps) are expert garbage – you put expert garbage in ... you get expert garbage out! And that's all that these flood maps are expert garbage
- ▶ Local residents have a much better knowledge of what a 100 year flood looks in like Pinehaven than GWRC, UHCC and their so-called experts!