

UHCC - PC42 Hearing

4 Case Studies (Dec 2014)

Save Our Hills (Upper Hutt) Inc.

We attempted to table and discuss these 4 case studies at a special meeting to determine the terms of reference for an independent audit with GWRC and UHCC in January 2015, but the meeting was instantly closed the moment we tabled the documents, and the Terms of Reference were crafted to carefully avoid the single issue for which we had requested the audit.

We have already covered Case Study 1 (27 Elmslie Rd) earlier at today's hearing.

PINEHAVEN STREAM - Flood Map

Regional Orthophotography Copyright © GWRC / NZDM 2013
Topographic and Cadastral data © copyright LINZ



Map 0 – Flood Map

This map is the standard style of flood map produced to identify properties that may be at risk of flooding. It is designed to be a simple map to use and therefore contains no information about depth or hazard category. A property can quickly be determined as either within or outside of the mapped flood area.

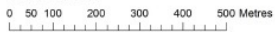
This is a 'flag raising' type map that should be used as a first step in determining if a property is at risk of flooding.

DISCLAIMER:
The flood hazard information shown on this plan is based on the best available data at the time of preparation. Specific interpretation of flood risk in any areas shown to be affected by flooding should be obtained by written request from the Greater Wellington Regional Council. The GWRC and other agencies involved in the preparation of this plan assume no responsibility for any interpretation or action taken by any agency or individual in relation to information provided on the plan.

Legend

- Stream centreline
- Pipe network
- 100 year flood event
- Flood spread

A1 Scale: 1:3,500



Case Studies 2 – 4 (Dec 2014)

Case Study 2: Dunns Street

Case Study 3: Pinehaven Reserve

Case Study 4: Pinehaven Road

Case Study 2: Dunns Street

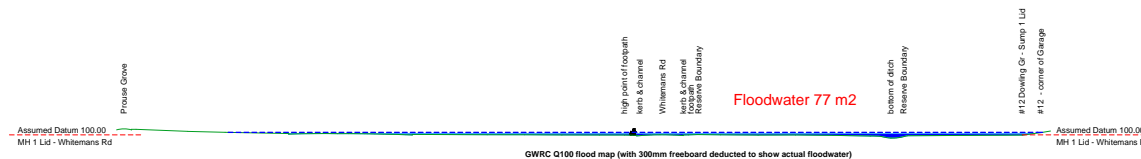


GWRC Q100 Flood Map at Dunns St 1:2000

The red mark is where Keith Thomas said the 1976 100-year flood came to on his property at 44 Whitemans Rd (which was before the stormwater drainage network was upgraded to 50-year storm capacity, meaning a 100-year flood today should be less than this mark, not 60m beyond it as shown in this GWRC Q100 flood map)

Assuming a flow velocity of 1m/s, GWRC's flood map at Dunns St is showing about **77 m³/s** (after deducting 300mm freeboard), which is 3 times GWRC's calculated flow of approximately 25 m³/s.

PRELIMINARY



Dunns St _Cross-Section A-A

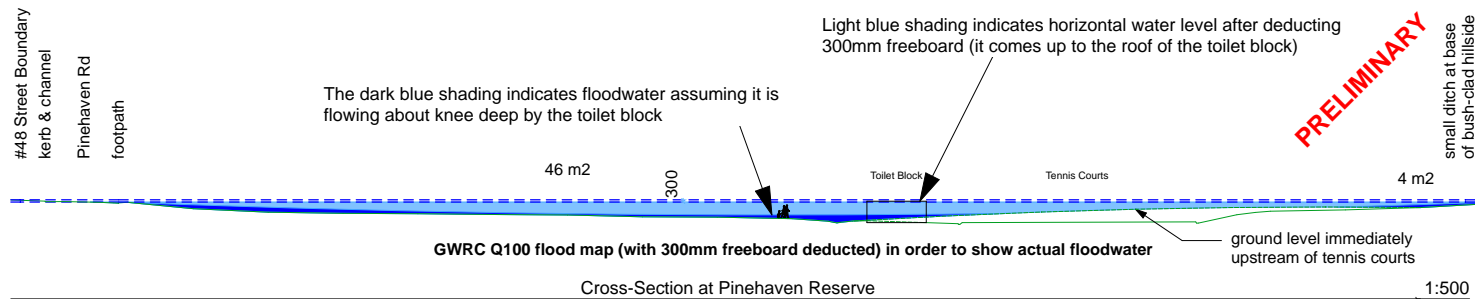
1:1000

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**CASE STUDY 2: based on
 GWRC FLOOD MAP**
 Cross-Section of GWRC Flood Map
 Dunns Street (bottom of catchment)

SHEET #2
 SHEET TITLE: Case Study 2_Maps
 REVISION #:
 ISSUED: 23/12/14
 PROJECT #: #P#

Case Study 3: Pinehaven Reserve



GWRC Q100 Flood map at Pinehaven Reserve 1:2000

Assuming a flow velocity of 1m/s, GWRC's flood map at Pinehaven Reserve is showing about **50 m³/s** (after deducting 300mm freeboard), which is 3 times GWRC's calculated flow of approximately 16 m³/s.

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CASE STUDY 3: based on GWRC FLOOD MAP
Cross-Section of GWRC Flood Map
Pinehaven Reserve (middle of catchment)

SHEET TITLE: Case Study 3_Maps
REVISION #:
ISSUED: 23/12/14
PROJECT #: #Pn

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Case Study 4: Top of Pinehaven Rd

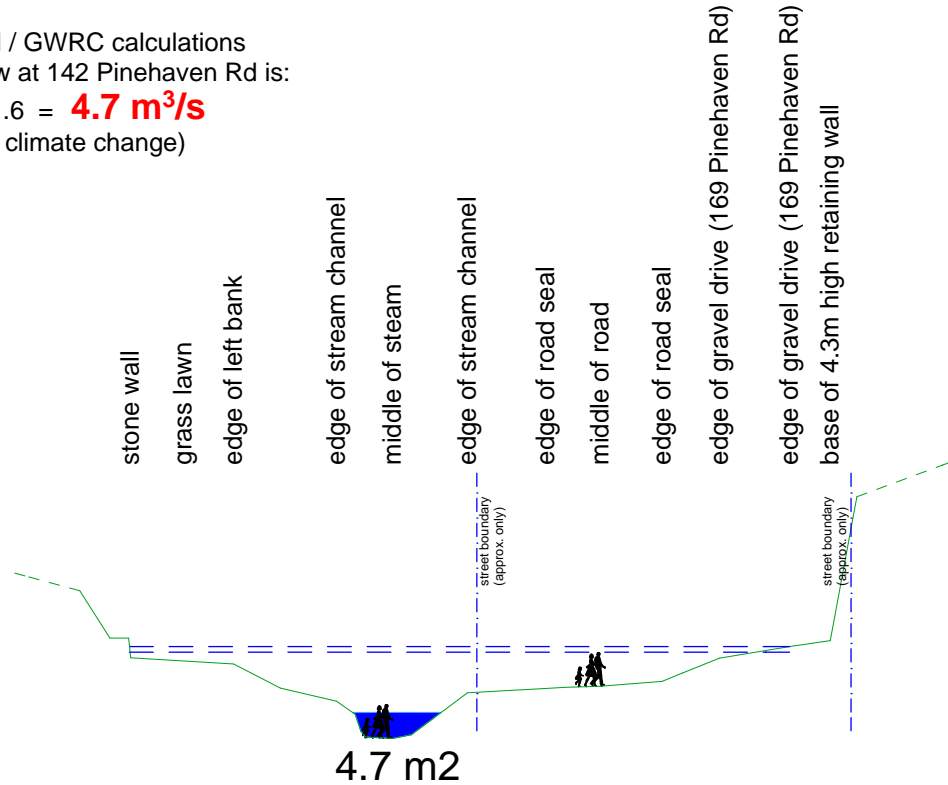
GWRC Pinehaven Stream Flood Calculations for All Sub-Catchments (includes Climate Change)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
2.534386	3.070882	1.606346	2.135655	2.250476	2.718146	1.776157	1.892866	0.964157	1.514168	1.635654	1.22115	0.761737	0.875657	1.196021

GWRC spreadsheet shows the discharge for sub-catchments B + C = 4.6 m³/s (which includes climate change).

Based on MWH / GWRC calculations the 1/100 yr flow at 142 Pinehaven Rd is:

$B + C = 3.1 + 1.6 = 4.7 \text{ m}^3/\text{s}$
(which includes climate change)



Cross-Section at 142 Pinehaven Road

1:200

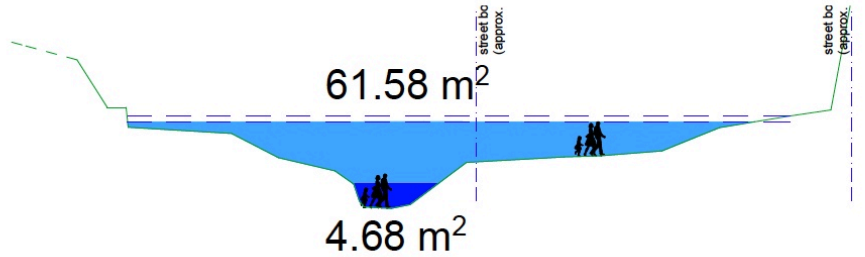
PRELIMINARY

SHEET	SHEET TITLE: Case Study 4 - Cuts	# Architect Full Address
REVISION #:		PHONE: # Architect Phone Number
ISSUED:	23/12/14	FAX: # Architect Fax
PROJECT #:	#P#	# Architect Email
		# Architect Web

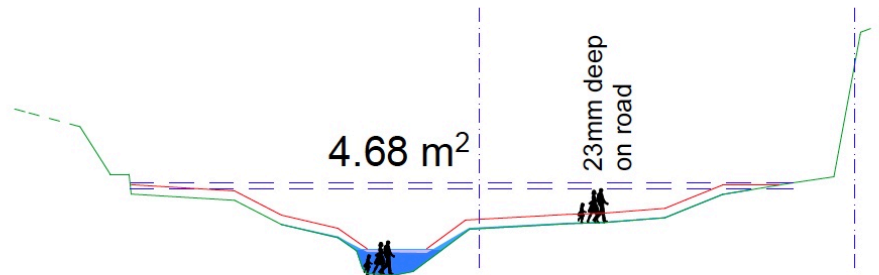
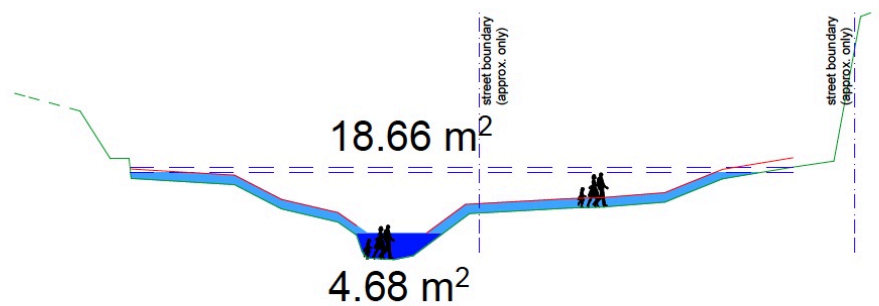
CASE STUDY 4: based on GWRC CALCULATIONS
Cross-Section of GWRC Calculations
142 Pinehaven Rd (top of catchment)

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Case Study 4: Top of Pinehaven Rd



Cross-Section at 142 Pinehaven Road 1:200



Pinehaven Rd Aerial 1:1000

Assuming a flow velocity of 1m/s,
 GWRC's flood map at 142 Pinehaven
 Rd is showing about
~19 m³/s
 (after deducting freeboard),
 which is 3 times GWRC's calculated
 flow of approximately 4.7 m³/s.

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**CASE STUDY 4: based on
 GWRC FLOOD MAP**
 Cross-Section of GWRC Flood Map
 142 Pinehaven Rd (top of catchment)

SHEET TITLE: Case Study
 4_Anlys
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 PROJECT #:
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DEADLY AMBIGUITY

Because of the deliberate ambiguity of the current flood maps Save Our Hills (upper Hutt) Inc. is very concerned about the high probability of run-off from future development on the hills (the Guildford land in the upper catchments, i.e. referred to in UHCC's Land Use Strategy as Council's 'Southern Growth Area') being allowed to be discharged into our streams and the community having no recourse because of these flood maps.

This poses a serious threat to people and property, and potentially contravenes the purpose of the Act.

Kevin Keown – 138 Pinehaven Rd

- ▶ Yesterday, Kevin with me (S. Pattinson, SOH) the view held by himself and several of his neighbours that the reason they think the flood maps are so exaggerated is to protect the Council from liability in the future if Council allows the development along the ridges and it results in increased flooding in the valley.
- ▶ Council will then be able to point to the flood maps dated 2017 and say the public was advised well before any development took place on the ridges that Pinehaven has extensive flooding issues.
- ▶ This scenario is a real possibility; SOH requests that it be investigated by an independent expert.