

# 1980s Significant Drainage Upgrade

Save Our Hills (Upper Hutt) Inc.

Current 1-in-100 year flood maps don't show any benefit from “significant work” in the 1980s (after 1-in-100+ year flood in 1976 ) to improve stormwater drainage in Pinehaven and Silverstream; this work doubled the capacity of the drainage network and should result in less flooding in future.

Yet, due to climate change, blockages and freeboard, GWRC's flood maps predict more rather than less flooding if a similar storm re-occurred? This is not plausible, and SOH wants this independently investigated before current flood maps are accepted by UHCC into the District Plan.

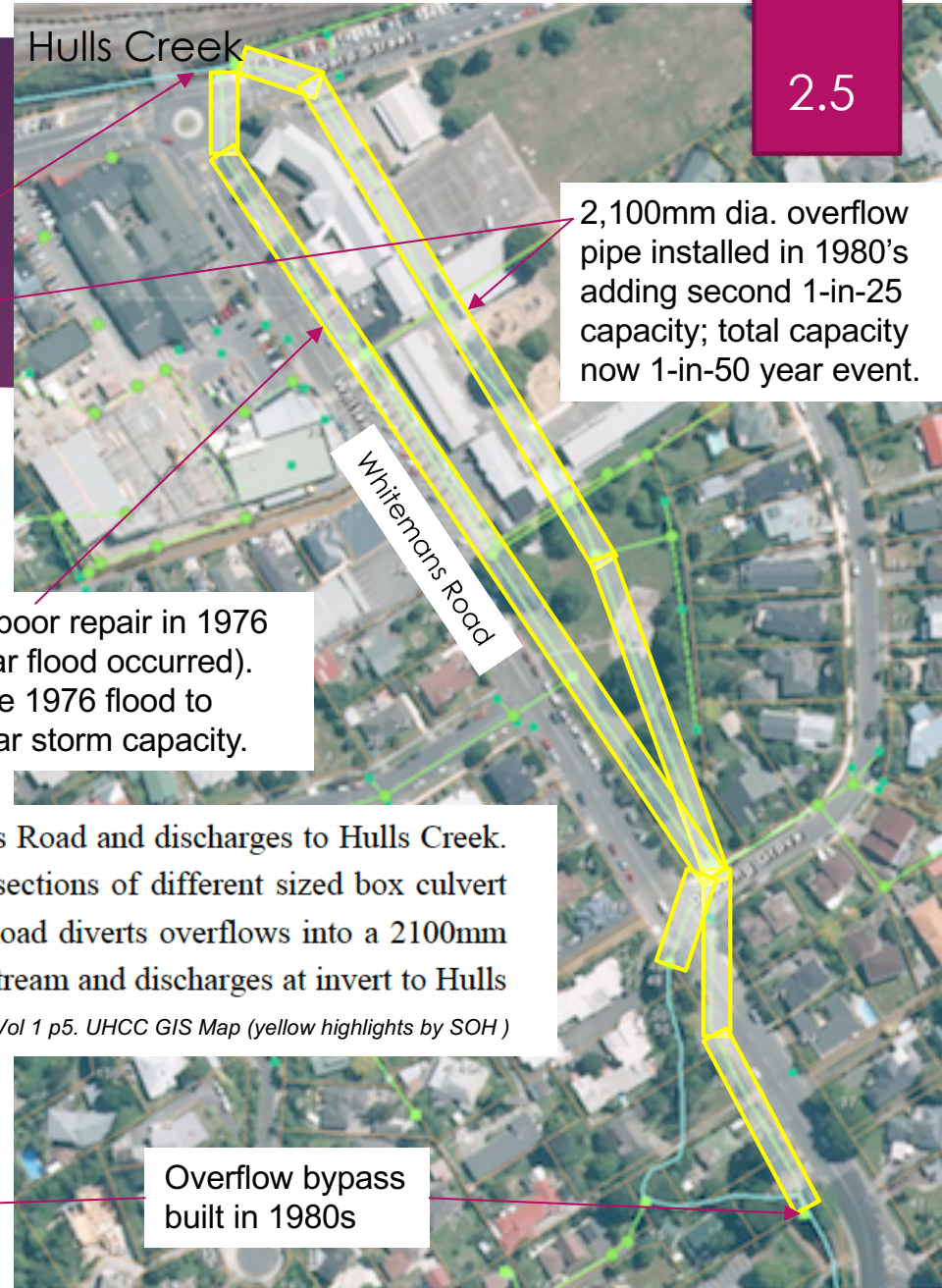
# 1980s improvements: lower catchment

2.5

Pinehaven Stream  
discharging into  
Hulls Creek



1,800mm dia. pipe (in poor repair in 1976 when the 1-in-100+ year flood occurred). It was repaired after the 1976 flood to reinstate its 1-in-25 year storm capacity.



2,100mm dia. overflow pipe installed in 1980's adding second 1-in-25 capacity; total capacity now 1-in-50 year event.

Whiteman's Road

Pinehaven stream ...

... enters a pipe network that drains under Whiteman's Road and discharges to Hulls Creek. This particular piece of pipe network is comprised of two sections of different sized box culvert and an 1800mm diameter pipe. A bypass on Whiteman's Road diverts overflows into a 2100mm diameter pipe that follows a similar alignment to the piped stream and discharges at invert to Hulls Creek. *Quote from GWRC Pinehaven Stream Flood Hazard Assessment 2010 Vol 1 p5. UHCC GIS Map (yellow highlights by SOH)*



Overflow bypass  
built in 1980s

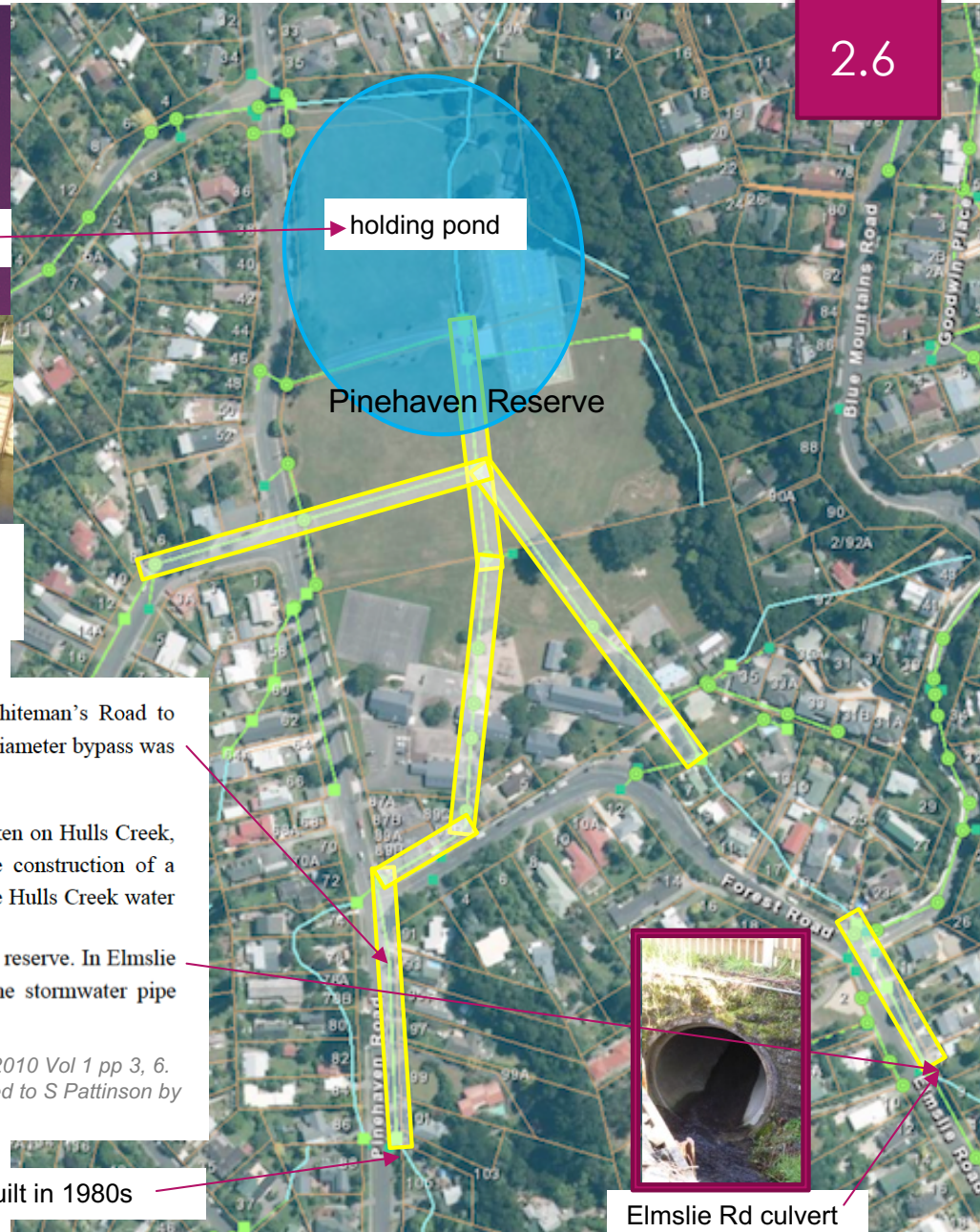
# 1980s improvements: Pinehaven Reserve

Open stream feeds holding pond on lower field



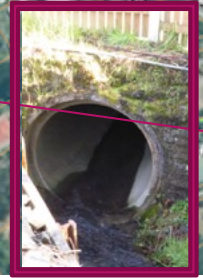
Overflow bypass built in 1980s at 105 Pinehaven Road

Combined drain discharges to open stream & ponding area in Pinehaven Reserve



holding pond

Pinehaven Reserve



Elmslie Rd culvert

## Improvements after 1976 flood ...

This event led to the construction of a 2100mm diameter bypass under Whiteman's Road to provide protection against a 50 year event (UHCC, 1983). A smaller 1200mm diameter bypass was also constructed in Pinehaven Road upstream of Pinehaven Reserve.

The flooding of December 1976 also prompted significant work to be undertaken on Hulls Creek, the downstream boundary of the Pinehaven stream. This work included the construction of a detention dam upstream of the Pinehaven/Hulls Creek confluence to control the Hulls Creek water level.

An overflow bypass in Pinehaven Road also drains into the pipe network in the reserve. In Elmslie Road the stream passes beneath Forest Road in a culvert before entering the stormwater pipe network in Pinehaven Reserve.

*Quotes from GWRC Pinehaven Stream Flood Hazard Assessment 2010 Vol 1 pp 3, 6. UHCC GIS Map (yellow highlights and ponding by SOH, as described to S Pattinson by the late John Christenson, Civil Engineer, Pinehaven)*

Overflow bypass at 105 Pinehaven Road built in 1980s