

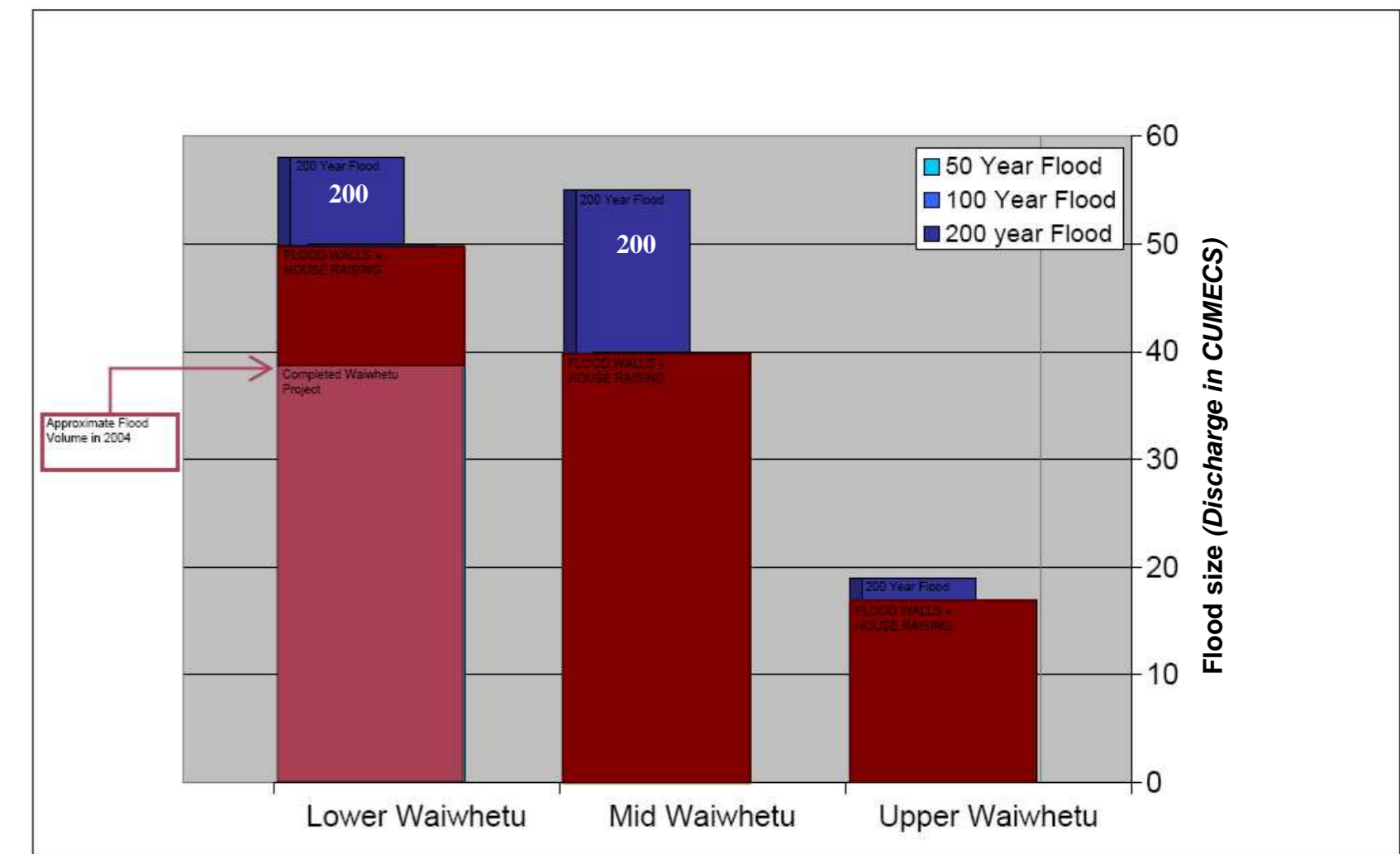
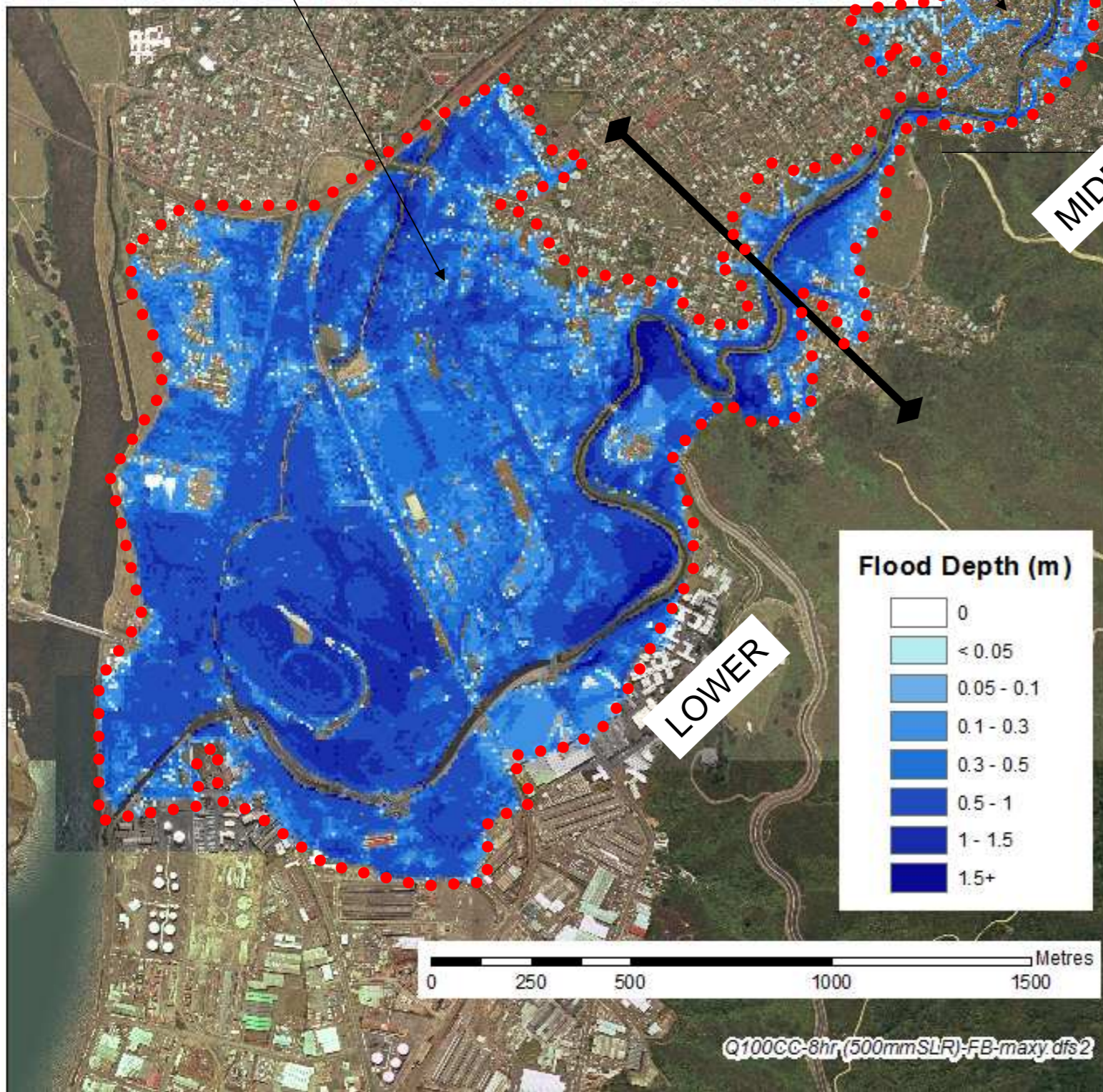
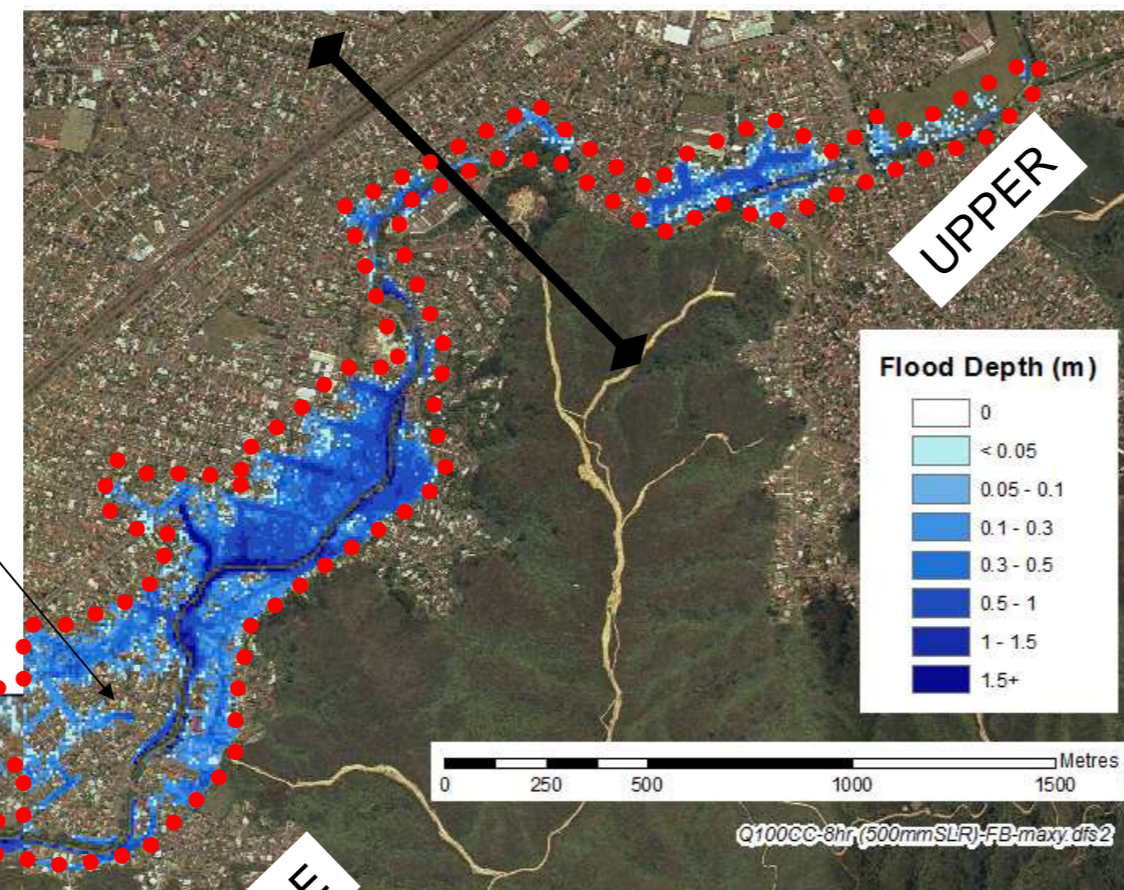
A total of 0 Houses could be expected to have flood water above floor level in this scenario

**Option 6 Planning Control Implications;**

**Density** - Planning controls how small a section can be in flood prone areas

**Floor Levels** – Control to make minimum floor levels 1-in-100 year flood level for new development

**Access** – Controls to require new developments have safe access in a 1-in-100 year flood event



Option	Description	Estimated Cost
House raising piles	Costs estimated \$70,000 to raise, and 389 estimated piled houses.	\$27 Million
House raising slab	Costs estimated \$130,000 to raise, and 223 estimated slab properties are flooded inside house	\$29 Million
Total costs		\$56 Million

<b>Total cost</b>	\$56 Million
<b>Direct damages saved (in a single 1-in-100 year event)</b>	\$83 Million
<b>Individual ratepayer cost per year \$100,000 of property value (HCC ratepayers over a 20 year loan funded works repayment schedule)</b>	<b>\$30.01 p.a./\$100,000</b>

**Disclaimer;**

All dollar values used are approximations and may change during further detailed investigation; Calculations use the 2007 dollar value; Direct damages saved only consider one occurrence of a 1-in-100 year flood event; Individual rate payer cost is a guideline only and may not reflect final rating values.

## Option 6 – House Raising

**Description** – House raising can be used to remove individual properties out of the flood hazard. It does not change the existing flood situation.

**Strengths** - It can be targeted to the most needed locations. Implementation can be staged over a number of years. It can be used to protect those few remaining people who may remain unprotected after combining other options.

**Weaknesses** - It is easier to raise some houses than others, meaning that the costs vary depending on building type. Timber pile houses are typically easiest and cheapest to raise. It can solve one persons problem without aiding anyone else, therefore its hard to make sure everyone gets treated fairly.

# Waiwhetu Stream Floodplain Management Plan – Options Development



greater WELLINGTON  
REGIONAL COUNCIL  
Te Pane Matua Taiao