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Committee Hutt Valley Floodplain Management Subcommittee
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Waiwhetu Floodplain Management Plan – Project Manager’s Report

1. Purpose

To update the subcommittee on development of the floodplain management plan for the Waiwhetu Stream. This includes new investigation outcomes for house raising options, and an update on the progress of current floodplain management plan development, including the future work programme.

2. Background

The Waiwhetu Stream Floodplain Management Plan Phase 2 investigations are in the stage of identifying a preferred option combination. On the 11th June 2013 a report was delivered to this subcommittee which outlined the summary of investigations for a range of option combinations completed to that date. At that meeting the subcommittee approved further investigations and requested that a review of house raising as a flood risk management option be reinvestigated. House raising investigations had originally been done in 2007.

The Waiwhetu Project completed in 2009 raised the protection levels for the Waiwhetu Community to a current 1-in-40 year return period flood event. GWRC recommends that all new development is built to be safe from the 1-in-100 year return period flood and considers residual risk (where residual risk is the chance of a greater than design event flood occurring or the consequences of failure of flood protection measures).

3. Revised House Raising Investigation Report

The 2014 house raising investigation completed the following tasks:

- Review of the 2007 House Raising Investigation report.
- Identified additional properties now classed as at risk due to inclusion of climate change in the hydraulic model.
- Reviewed the cost for house raising and reinstatement of at risk properties.
- Completed on site visual surveys to assist with the above tasks.

The investigations drew on the expertise of a combination of industry experts, including engineers, house raising practitioners, and building practitioners. These included individuals with recent experience from the Christchurch rebuild efforts.

In total 154 properties were identified as at risk of flooding, and 138 of these were identified as being possible to raise through a range of methods dependant on foundation and cladding type.

The identified house types were split into the following categories:

1. Weatherboard cladding on pile foundation.
2. Stucco, fibre cement, brick or stonework cladding on pile foundation.
3. Brick or stucco cladding on concrete slab foundation.
4. Weatherboard cladding on concrete slab foundation.
5. Concrete block structure on concrete slab or pile foundation.

Of these five, categories 1 to 4 can be raised. Category 5 (concrete block) cannot be raised - only a small number of houses fell into this category.

The table below summarises the findings of the report.

Table 1 Range of costs expected for house raising for various cladding and foundation types in Waiwhetu

Cladding	Foundation	Raise house	Builders Work	Consents, debris, new piles	TOTAL
Weatherboard	Piles	\$19,500 – \$58,500	\$45,000 – \$80,000	\$23,000 – \$27,000	\$101,500 – \$171,500
Stucco - brick	Piles	\$19,500 – \$39,000	\$60,000 – \$200,000	\$21,000 – \$27,500	\$103,500 – \$266,500
Stucco - brick	Concrete Slab	\$32,500 – \$39,000	\$140,000 – \$250,000	21,000 – 29,000	\$206,000 – \$344,000
Weatherboard	Concrete Slab	\$39,000	\$100,000 – \$150,000	\$25,500	\$165,000 – \$214,500

The total estimated cost, if all these 138 houses were to be raised, is \$25.5 million \pm 30%.

4. Further Investigations

The findings of the house raising investigation, in addition to previous investigations, highlight the complicated nature of identifying sustainable, affordable flood risk management approaches for the Waiwhetu catchment, and how traditional approaches alone are unlikely to deliver an acceptable solution.

The Flood Protection Department is currently identifying adaptive management approaches, such as managed retreat. These aim to establish a framework which would manage risk and future uncertainty in a range of different ways. A summary of some identified methods will be provided in a separate presentation to the subcommittee.

With no preferred option combination yet identified, it is not possible to deliver a floodplain management plan in the 2013/14 financial year.

5. Programme

The following outline programme recommends the delivery of a floodplain management plan at the end of the 2015/16 financial year. Work will commence on development of adaptive and alternative management approaches and further investigation of non-structural options in January 2015, with some high level scoping being completed prior to this date.

Two workshop items, Climate Change and Major Infrastructure decision making with changing risk, have been scheduled for this subcommittee meeting. These explore the challenges of developing sustainable adaption pathways for flood risk management.

6. Communication

Home and property owners included in the survey work associated with the House Raising investigation report were contacted prior to the survey work being completed, and their concerns regarding this survey and its significance discussed.

7. The decision-making process and significance

Officers recognise that the matters referenced in this report may have a high degree of importance to affected or interested parties.

The matters requiring decision in this report have been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act). Part 6 sets out the obligations of local authorities in relation to the making of decisions.

7.1 Significance of the decision

Part 6 requires Greater Wellington Regional Council to consider the significance of the decision. The term 'significance' has a statutory definition set out in the Act.

Officers have considered the significance of the matter, taking the Council's significance policy and decision-making guidelines into account. Officers recommend that the matter be considered to have low significance.

Officers do not consider that a formal record outlining consideration of the decision-making process is required in this instance.

8. Recommendations

That the Subcommittee :

1. *Receives the report.*
2. *Notes the content of the report.*
3. *Notes the findings of the Waiwhetu Stream Floodplain Management House Raising Options Review.*
4. *Approves the deferral of completing the Draft Floodplain Management Plan for the Waiwhetu Stream to June 2016.*

5. *Notes that the next stages of investigations will focus on alternate and adaptive management approaches and further exploration of non-structural and non-traditional methods of floodplain management.*

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