

Report 2016.259
Date 27 May 2016
File CCAB-14-161

Committee Hutt Valley Flood Management Subcommittee
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Pinehaven Stream Floodplain Management Plan

1. Purpose

To update the Subcommittee regarding the process and outcomes of the workshops held with representatives of the Pinehaven and Silverstream Community regarding the work to improve community understanding of the flood hazard information.

To seek endorsement of the Pinehaven Stream Floodplain Management Plan (Plan), as recommended by the Pinehaven Stream Floodplain Management Plan Hearing Panel (Panel).

2. Background

The Plan establishes goals and objectives for the management of flooding issues within the Pinehaven Stream catchment to achieve the vision of ‘*A prosperous and safe community that proactively manages the risk of flooding in the Pinehaven catchment*’.

The Plan proposes a suite of methods for the management of flooding in the catchment. Together, these methods provide a comprehensive and long term approach for flood management in Pinehaven and Silverstream. These methods are a package of structural works, a recommended District Plan change and non-structural on-going stream management activities.

The structural works are designed to provide an in-stream capacity for a 4% AEP/1-in-25 year return period flood event and to protect the floor levels of homes to a 1%AEP/1-in-100 year return period flood event including the effects of climate change.

The recommendations for the Pinehaven and Silverstream plan change include identification of the flood hazard and the control of development within the catchment to manage any future flooding risk.

The Panel met on 7 April 2016 to hear 13 oral presentations and consider all written submissions.

The Panel recommended:

“the adoption of the Pinehaven Stream Floodplain Management Plan, subject to officers reviewing the presentation of flood hazard maps for the purpose of enhancing community understanding of the Plan in consultation with the independent auditor and representatives of the Pinehaven community, and reporting the outcome of the review to this Subcommittee at the same time as the Subcommittee considers this report”

3. Review of presentation of flood hazard maps

3.1 Community Meetings

To date, two community meetings have been held to meet the requirements of the recommendation from the hearing panel. These meetings were held with members of a Pinehaven and Silverstream Focus Group (Focus Group) established by Upper Hutt City Council (UHCC). Each meeting involved the independent auditor.

3.2 Key community demands

The Focus Group agreed that they wanted more information to better understand how the map was built up and what impact additions of allowances for; climate change; blockages and other uncertainties had on the flood map.

The Focus Group agreed they would like to see better clarity about flood hazard to life shown on the maps, and clearer definition of hazard to life categories, including identification of areas that would be considered insignificant hazard to life or structural damage to buildings.

Some members of the Focus Group have concerns with flood depth less than 100mm (insignificant hazard to life and structural damage to buildings category) being shown on the maps because of impacts it may create in relation to development controls, insurance costs, and perception of people looking to move into the area.

Some members of the Focus Group wanted a better understanding of time to flooding occurring for their properties.

3.3 Maps produced

In total 10 additional maps have been created to meet the needs identified with the Focus Group. These are included as **Attachment 1** to this report.

3.3.1 Story Map – Building a flood map

This four map sequence shows the impacts of each allowance added to build the complete flood map, including identification of key locations where changes occur as a result of these additions. This information is being worked into a pamphlet to aid improved understanding of how the flood map for Pinehaven was created.

An additional map showing all four steps of the sequence was created to enable easy comparison of all stages with each other. The four steps include the base map, climate change, blockages and freeboard.

This map was well received by the focus group

3.3.2 Probability Map

This map was created to enable people to better understand the likelihood of their property or area flooding in any year and included 5, 10, 20, 50 and 100 year return period flood spreads.

This map was of interest to some members of the Focus Group

3.3.3 Time to inundation

This map shows how long it takes for an area to flood to its maximum modelled flood depth, measured from when the storm event starts. This map is useful when trying to understand how much time you may have to take action to protect property or possessions by activating your home emergency plan.

This map can only serve as a general indication of time, and is less useful in the Pinehaven catchment because of how quickly the whole catchment floods.

This map was of interest to many of the focus group.

3.3.4 Hazard to life map

This map had previously been incorporated in the updated Plan released in September 2015. The Focus Group requested a modification of this map to differentiate or remove the flood depths less than 100mm.

GWRC is unable to remove the 100mm and less depth due to its responsibility for mapping all flood hazard. However, we are happy to modify the colour of this area to reflect the minimal risk to life posed by this depth of flood water. While flood water depth of less than 100mm may be of insignificant risk to life and of structural damage to property, it still remains a hazard for property and possessions, and is still required for determination of recommended building floor levels and insurance.

This map was well received by the focus group. However, some concern is still voiced by members of the Focus Group about the 100mm and less flood depth.

3.3.5 Comparison of 1976 flood map with modelled flood

This map compares the flood extent record collected after the 1976 flood event to the modelled flood. This map was produced for general interest and was well received by the Focus Group.

3.3.6 1-in-100 year flood extent map

This map is the standard map identifying areas at risk of flooding within a catchment. This map has been duplicated as part of this work for comparative purposes.

This map is concerning for the Focus Group because of the blanket identification of flooding without any additional detail about severity of hazard, depth or likelihood.

3.4 Demands unable to be met

GWRC is not in a position to discount or remove areas of flooding based on Focus Group member concerns that it may lead to controls on subdivision or development of their property. One of the key outcomes sought by GWRC through its Floodplain Management Planning approach is appropriate land use with respect to flood risk. This is achieved by full identification of flood risk to a 1-in-100 year return period standard, and the recommendation of controls put into place through a District Plan in these risk areas that take into account the hazards in those areas.

4. Community engagement

The Pinehaven and Silverstream communities have been included in the development of flood risk management for the Pinehaven Stream catchment since completion of the draft flood modelling in 2009. The community engagement has predominantly involved public open days and meetings with the flood and proposed stream work affected property owners. In addition, information and resources have been made available to the community through both printed and web based material.

4.1 Letter Drop

At the start of this project, an initial letter drop was undertaken. This included information on the local flooding history and the sharing of experience was invited from the residents in the Pinehaven catchment. Pinehaven has numerous long term residents who have valuable knowledge of past flooding events, including the flooding in 1976. Council staff and Jacobs (formerly SKM) met and discussed flooding history with a number of residents, whose local knowledge proved to be invaluable in verification of the modelling work and in understanding the catchment.

4.2 Drop-in Sessions and open days 2009 to 2012

A community 'drop in' session was held in Pinehaven on 12 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 the predicted flooding extents matched what they had personally observed and experienced. This endorsement adds further confidence to the outcomes of the investigations.

An open day and evening was held on 18 July 2012 to discuss and develop combinations of options with the community. The open day was visited by 60 residents and the general attitude was supportive of the need to undertake direct action to increase the management of the risk.

The open day highlighted high level community values of the stream, including discussion of: impacts of the project on ecological values of the stream; the cost of the project; cost and fear of damages; development and planning controls; and timeframes for implementation.

4.3 Property Owner Consultation 2012

Individual meetings with property owners impacted by potential structural options have been on-going since these were identified in 2012. These relationships will be maintained between the property owners, GWRC and UHCC throughout implementation of the floodplain management plan.

These meetings discussed the direct impacts on the particular property owners and identified the values which were important to those owners. These discussions aimed to identify the social, environmental, cultural and economic values held by property owners. The meetings covered broad topics including; spiritual attachment to the area, visual appeal, recreational opportunities, ecological health, flood risk, security, access, affordability, connectedness, community, resilience and emergency management.

4.4 2014 consultation and submissions

The draft Plan was notified to the community in October 2014, which gave the community an opportunity to make submissions. Thirty-two submissions were received, predominantly from private property owners within the catchment. The primary concern raised by the community was if the flood modelling and map extents were accurate. As part of this, many submitters requested an independent audit be undertaken. In direct response to the submitters concerns, an independent audit was undertaken. This review concluded that the modelling was accurate and fit for purpose.

Other issues raised by two submitters included making sure trees and native bird populations in Pinehaven were recognised and managed through the design of structural improvements. The first stage of the ecological survey for future works has now been undertaken and will inform future design activity.

4.5 2015 consultation and submissions

A revised draft Plan was released for consultation in 2015. The purpose of this consultation was to not only outline how the independent review of the flood modelling had been undertaken and influenced the design of the updated Plan, but to undertake further engagement on the Plan Change request to the Upper Hutt District Plan and to understand any further views on the proposed structural works.

Open days were held alongside other related activities that were being consulted on by UHCC. Over the two open days 40 people attended who noted they were there to understand the Plan.

Attendees represented a broad area of the catchment, drawing residents and owners from the lower, middle and upper catchment, and included both those

who were subject to potentially significant flooding, and those who were outside the identified flood prone area.

The majority of the questions or submission points could be answered through the Plan document. However, one point that needed to be addressed in this update of the document was the provision of a clearer definition of stormwater neutrality and how this could be addressed in the development of a future Plan Change.

4.6 Iwi Consultation

The Council project group has a memorandum of understanding with Te Tangata Whenua o te Upoko o te Ika a Maui, a grouping of local iwi (from the Rangitāne and Te Atiawa hapu). The project group met with representatives from Rangitāne, Wellington Tenth Trust and Te Atiawa to discuss the cultural significance of the Pinehaven Stream catchment. In addition a cultural likelihood of discovery database held by GWRC was checked. The outcomes of this were that the Pinehaven catchment had significance as a waterway, but was not known to be an area of historic cultural significance or current cultural significance to Māori.

4.7 2016 community meetings

Two community meetings have been held in May 2016 with members of a Pinehaven and Silverstream Focus Group established by UHCC. Each meeting involved the independent auditor.

Community representatives attended each meeting. The discussion was focused on flood mapping. The community was asked for their preferences regarding representation of the flood hazard on the maps. They voiced their concerns and demands during the first meeting. These were used to develop an updated set of flood hazard maps that was presented to the community during the second meeting. The updated maps were well received.

5. Communication

All submitters and key stakeholders will be advised by letter once the Plan has been approved by Council

6. 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.

The subject matter of this report is part of a decision-making process that will lead to the Council making a decision of medium significance within the meaning of the Local Government Act 2002.

The process applied to date has involved the identification and detailed analysis of options, and identification of options for public consultation. This

report outlines the process of consultation followed, the feedback received and the consideration of that feedback.

The Subcommittee's recommendations will be presented to the Environment Committee for consideration.

Once the Plan has been approved, the next step in this project will be the design process leading to the preparation of consent applications.

6.1 Engagement

In accordance with the significance and engagement policy, officers determined that the appropriate level of engagement is informing and consulting. The consultation and engagement activities that have been undertaken are set out in section 4 to this report.

7. Recommendations

That the Subcommittee:

1. ***Receives the report.***
2. ***Notes the content of the report.***
3. ***Notes the recommendations of the Pinehaven Stream Floodplain Management Plan Hearing Panel set out in Report 16.146.***
4. ***Notes that following community consultation, additional maps have been developed for the purpose of enhancing community understanding of the Pinehaven Stream Floodplain Management Plan.***
5. ***Notes that the maps will be included as an appendix in the Pinehaven Stream Floodplain Management Plan.***
6. ***Endorses the Pinehaven Stream Floodplain Management Plan and accompanying maps as set out in Attachments 1 and 2 to this report for consideration by the Environment Committee and for adoption by Council.***

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Attachment 1: Pinehaven Stream – Building a Flood Map (to be included as an appendix to the Plan)

Attachment 2: Pinehaven Floodplain Management Plan