



If calling please ask for: Democratic Services

5 December 2018

Te Kāuru Upper Ruamahanga River Floodplain Management Plan Subcommittee

Order Paper for meeting to be held in the Choice Room, Greater Wellington Regional Council, 34 Chapel Street, Masterton on:

Monday, 10 December 2018 at 10.00am

Membership of Committee

Bob Francis (Chair)

Cr Barbara Donaldson

Cr Adrienne Staples

Deputy Mayor Graham McClymont

Cr Brian Deller

Stephanie Gundersen-Reid

Kate Hepburn

David Holmes

Janine Ogg

Rawiri Smith

Michael Williams

Greater Wellington Regional Council

Greater Wellington Regional Council

Masterton District Council

Carterton District Council

Recommendations in reports are not to be construed as Council policy until adopted by Council

Te Kāuru Upper Ruamahanga River Floodplain Management Plan Subcommittee

Order paper for the meeting held on Monday, 10 December 2018 in the Choice Room, Greater Wellington Regional Council, 34 Chapel Street, Masterton at 10.00am

Public Business

		Page No
1.	Apologies	
2.	Declarations of conflict of interest	
3.	Public participation	
4.	Confirmation of the minutes of 5 June 2018	Report 18.220 3
5.	Te Kāuru Upper Ruamahanga FMP Stage 1 Engagement Summary	Report 18.568 5
6.	Updated Waipoua flood hazard maps	Report 18.569 17
7.	Te Kāuru Upper Ruamahanga FMP Project Manager's Report	Report 18.567 30



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

Please note that these minutes remain unconfirmed until the meeting of Te Kāuru Upper Ruamahanga River Floodplain Management Plan Subcommittee on 10 December 2018

Report 18.220

5/06/2018

File: CCAB-12-301

Minutes of the Te Kāuru Upper Ruamahanga River Floodplain Management Plan Subcommittee meeting held in the Choice Room, Greater Wellington Regional Council, 34 Chapel Street, Masterton, on Tuesday, 5 June 2018 at 10:06am

Present

Bob Francis (Chair), Councillor Donaldson (Greater Wellington Regional Council), Siobhan Garlick, Stephanie Gundersen-Reid, Kate Hepburn, David Holmes, and Michael Williams.

Public Business

1 Apologies

Moved

(Mr Francis/ Cr Donaldson)

That the Subcommittee accepts the apologies for absence from Councillors Deller, McClymont, and Staples, Rawiri Smith, and Janine Ogg.

The motion was **CARRIED**.

2 Declarations of conflict of interest

There were no declarations of conflict of interest.

3 Public Participation

There was no public participation.

4 **Confirmation of the minutes of 8 May 2018**

Moved (Cr Donaldson/ Mr Holmes)

That the Subcommittee confirms the minutes of 8 May 2018, Report 18.184.

The motion was **CARRIED**.

5 **Te Kāuru Upper Ruamahanga FMP draft Volumes 1 and Volume 2 - endorsement for public consultation**

Francie Morrow, Project Manager, Floodplain Management Plans. spoke to the report.

Report 18.188 File: CCAB-12-292

Moved (Mr Holmes/ Ms Hepburn)

That the Subcommittee:

1. *Receives the report.*
2. *Notes the content of the report.*

The motion was **CARRIED**.

Moved (Mr Holmes/ Ms Gundersen-Reid)

3. *Endorses the draft Te Kāuru Upper Ruamahanga Floodplain Management Plan - Volume 1 and Volume 2, subject to minor editorial amendments approved by the Chair of the Subcommittee.*

The motion was **CARRIED**.

Moved (Mr Holmes/ Mr Williams)

4. *Recommends that the Environment Committee approves the draft Te Kāuru Upper Ruamahanga Floodplain Management Plan - Volume 1 and Volume 2 for public engagement.*

The motion was **CARRIED**.

The meeting closed at 11:06am.

Bob Francis
(Chair)

Date:



Report 2018.568
Date 21 November 2018
File CCAB-12-342

Committee Te Kāuru Upper Ruamahanga FMP Subcommittee
Author Francie Morrow, Project Manager – Floodplain Management Plans

Te Kāuru Upper Ruamahanga FMP Stage 1 Engagement Summary

1. Purpose

To present feedback received from the community during Stage 1 of the Te Kāuru Upper Ruamahanga Floodplain Management Plan (Te Kāuru) engagement process.

2. Background

The Te Kāuru Upper Ruamahanga Floodplain Management Plan Subcommittee is responsible for the development and adoption of the Te Kāuru FMP.

The FMP is being developed in collaboration with Masterton District Council (MDC), Carterton District Council (CDC), Ngāti Kahungunu ki Wairarapa, Rangitāne o Wairarapa, and the wider community, primarily through the Te Kāuru Upper Ruamahanga River Floodplain Management Subcommittee.

Good progress has been made with the development of 'Volume 1 – Background and Overview', and 'Volume 2 – Rural Responses'. 'Volume 3 - Waipoua Urban Responses' is being developed separately and an option assessment process is currently being undertaken.

The three volumes will be combined into a single document ("proposed FMP") prior to the final round of consultation.

The contents of the three draft FMP volumes are:

- Volume 1 – Background and Overview (including Common Methods descriptions)
- Volume 2 – Reach Values, Issues and Rural Responses
- Volume 3 – Waipoua Urban Responses

3. Comment

Stage 1 of public engagement on the draft Te Kāuru Upper Ruamāhanga Floodplain Management Plan (Te Kāuru) ran from 16 July 2018 to 16 September 2018. The purpose of this period of engagement was to seek feedback on draft versions of 'Volume 1: Background and Overview' and 'Volume 2: Location Specific Values, Issues and Responses' of Te Kāuru. Feedback on Volume 3 will be sought in late 2018/early 2019.

During Stage 1 Engagement, the Te Kāuru project team and Subcommittee members attended various engagement activities throughout the Upper Ruamāhanga catchment to explain the proposals and encourage feedback from the community.

The engagement took a number of forms, including:

- 22 small group discussions, called 'coffee groups', which were hosted by members of the community for riverside landowners
- Stalls at the Masterton and Carterton Farmers Markets
- Three drop-in centres; one in Gladstone, one in Carterton and one in Masterton
- A district wide brochure drop to Masterton and a brochure drop to those in the Te Kāuru catchment in the Carterton district
- Letters sent to riverside landowners
- Information in the local papers
- Social media campaigns
- Paid radio interviews with Chair of the Te Kāuru Subcommittee Bob Francis and Councillor Adrienne Staples
- Information on the Te Kāuru website

Overall approximately 400 people were engaged with at various events, with many more reached through the external publications such as social media, the website and radio interviews.

A summary of the key themes from the feedback noted at the various engagement events and received via email of using a feedback form, is included as [Attachment 1](#) to this report. These key themes include:

- Design line appropriateness
- Vegetated buffer approach

- Allowing the river room to move within the buffer
- Economic implications
- Designation process
- Local knowledge and input
- Western vs Eastern rivers

4. Next steps

The project team will work with the Subcommittee to develop the pieces of further work that have been identified as outcomes of this engagement process. Several pieces of work have been identified that can commence.

The major work streams identified and discussed at the last Sub Committee workshop on 13 November 2018 include:

- Buffer benefit assessment
- Analysis of buffers
- Buffer implementation plan
- Pest plant and animal plan
- Design line review
- Waipoua rural stopbanks review
- Gravel extraction
- Sediment movement and geomorphology
- Why change? What are the drivers?
- Funding/economics/rating
- Governance
- Whaitua alignment
- Rathkeale stopbank
- More clarity regarding the different management approach to the Eastern and Western Rivers

5. Consideration of climate change

The matters addressed in this report have been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

5.1 Mitigation assessment

Mitigation assessments are concerned with the effect of the matter on the climate (i.e. the greenhouse gas emissions generated or removed from the atmosphere as a consequence of the matter) and the actions taken to reduce, neutralise or enhance that effect.

Officers have considered the effect of the matter on the climate. Officers recommend that the matter will have an effect that is not considered significant.

Officers note that the matter does not affect the Council's interests in the Emissions Trading Scheme (ETS) or the Permanent Forest Sink Initiative (PFSI)

5.2 Adaptation assessment

Adaptation assessments relate to the impacts of climate change (e.g. sea level rise or an increase in extreme weather events), and the actions taken to address or avoid those impacts.

GWRC plans for climate change in assessing the degree of future flood hazard and in determining an appropriate response. There are only specific, limited situations in which climate change is not relevant (for example, planning for present-day emergency management).

In assessing flood hazard and determining appropriate structural and/or non-structural responses in areas subject to flood risk, GWRC is applying a rainfall increase of 20% to the flood hydrology in the FMP to account for climate change over the next 100 years.

Guidance from the Ministry for the Environment will be updated from time to time and our approach will be revised in line with any updates.

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.

6.1 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 and engagement 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.

6.2 Engagement

Engagement on the matters contained in this report aligns with the level of significance assessed. Stage 1 of the Te Kāuru engagement process has been outlined in this report.

7. Recommendations

That the Subcommittee:

1. *Receives the report.*
2. *Notes the content of the report.*

Report prepared by:	Report approved by:	Report approved by:	Report approved by:
Francie Morrow Project Manager – Floodplain Management Plans	Mark Hooker Senior Project Engineer – Floodplain Management	Graeme Campbell Manager, Flood Protection	Wayne O'Donnell General Manager, Catchment Management

Attachment 1: Summary of key themes from Stage 1 Engagement

Te Kāuru Upper Ruamahanga Floodplain Management Plan

Summary of key themes from Stage 1 engagement

1. Engagement process to date

Stage 1 of public engagement on the draft Te Kāuru Upper Ruamāhanga Floodplain Management Plan (Te Kāuru) ran from 16 July 2018 to 16 September 2018. The purpose of this period of engagement was to seek feedback on draft versions of 'Volume 1: Background and Overview' and 'Volume 2: Location Specific Values, Issues and Responses' of Te Kāuru. Feedback on Volume 3 will be sought in late 2018/early 2019.

During Stage 1 Engagement, the Te Kāuru project team and Subcommittee members attended various engagement activities throughout the Upper Ruamāhanga catchment to explain the proposals and encourage feedback from the community.

The engagement took a number of forms, including:

- 22 small group discussions, called 'coffee groups', which were hosted by members of the community for riverside landowners
- Stalls at the Masterton and Carterton Farmers Markets
- Three drop-in centres; one in Gladstone, one in Carterton and one in Masterton
- A district wide brochure drop to Masterton and a brochure drop to those in the Te Kāuru catchment in the Carterton district
- Letters sent to riverside landowners
- Information in the local papers
- Social media campaigns
- Paid radio interviews with Chair of the Te Kāuru Subcommittee Bob Francis and Councillor Adrienne Staples
- Information on the [Te Kāuru](#) website

Overall approximately 400 people engaged with us at various events, with many more reached through the external publications such as social media, the website and radio interviews.

2. Feedback received and associated responses

This report summarises the key feedback themes and major work streams to address comments or questions received.

The majority of the feedback was noted from conversations with 134 riverside landowners who attended the coffee groups or attendees at drop in centres. The remaining feedback has been collated from 12 emails, three posted feedback forms and 12 feedback forms submitted through the Te Kāuru website.

Te Kāuru Upper Ruamahanga Floodplain Management Plan

Feedback was received from various members of the public, and also from the following key stakeholders:

- Department of Conservation
- Wellington Fish and Game
- Federated Farmers
- Sustainable Wairarapa

It is acknowledged that not every piece of feedback has been directly addressed below. This feedback will be addressed in a full report on Stage 1 Engagement which will be available on the [Te Kāuru](#) website by the end of October 2018.

3. Key themes

Seven key themes have been identified as part of the engagement process. Each of these themes and associated questions will be considered by the project team and further work that is identified will be undertaken and workshopped with the Subcommittee to provide a response and/or resulting changes to the floodplain management plan.

Design line (inner and outer management line) appropriateness

The following key questions were commonly raised with regard to design lines:

- What is the review process for the design lines?
- Are the design lines negotiable?
- Will the design lines move further into private land if the river moves/into the future?
- Would like to see particular “hot spots” identified and more detail provided about how these will be managed

Vegetated buffer approach

The following key questions were commonly raised with regard to establishing vegetation consistently in buffers across the catchment:

- How will you manage increased pest plants/animals? Who will be responsible? How will the maintenance be funded?
- It is going to take a long time. How and where will you prioritise planting?
- Who pays for the planting/additional trees?
- Will you pay for survey and/or fencing costs?
- What species will you plant?
- How can we incorporate rongoa/medicinal plants?
- How much land is needed to be planted?
- What is the quality of the land to be planted?

Te Kāuru Upper Ruamahanga Floodplain Management Plan

- How much is the land worth?
- Have you recognised that in areas where land has been subdivided into smaller parcels (often narrow along the river), planting the buffer could have a much greater impact on individual landowners?

Allowing the river room to move within the buffer

The following key questions were commonly raised with regard to allowing the river room to move within the buffer:

- Are you basically saying you're going to walk away from managing the rivers?
- We've recently experienced a period of relatively few big floods. Will this approach still work when the pendulum swings the other way? (several people mentioned climatic cycles)
- I think the river management has been working very well. Hasn't it? What is the big driver for change?
- What are the scientific benefits of allowing the river more room?
- What are the comparative costs of intervening more often but smaller with less often but bigger?
- Do you have examples of where a planted buffer is working to compare with an unplanted buffer?
- How will you manage the increased sediment being eroded as a result of allowing the river more room to move? Can you explain how this will align with the Ruamāhanga Whaitua outcomes?
- How will you know if this approach is working?
- Are you really going to let established native bush erode? Why would anyone bother to plant more in that case?
- My river is different in [x] way and that hasn't been given enough recognition in your proposals.

Economic implications

The following key points/questions were commonly raised with regard to economic implications of the proposed responses:

- Who are you proposing is rated for the local share of river management works? Will this be per capita? Or zone base?
- Is this going to cost less in the future? Or more?
- Is what you're proposing legal?
- How different will my rates be?
- Can you provide an affordability analysis of the proposed costs and funding structure?

Te Kāuru Upper Ruamahanga Floodplain Management Plan

- How will the future governance arrangements make decisions about prioritising scheme works/spending across all the rivers?
- Concerned that with a much wider funding base, there will be less scrutiny or self-restraint on spending

Designation process

The following key points/questions were commonly raised with regard to the designation process:

- Have you sought legal advice on how the designation process would work?
- What are the implications of designation?
- Will the public have access to my land?
- Can you force me to plant the buffer?
- What happens if I don't want to plant the buffer?

Local knowledge and input

The following key question was commonly raised with regard to local knowledge and landowner input:

- Riverside landowners and local community members know these rivers better than anyone; will you still listen to us?

Western vs Eastern Rivers

The following key question was raised with regard to the different river systems within the catchment:

- There are two distinct types of rivers within the upper Ruamāhanga catchment, are they being addressed differently within Te Kāuru? This isn't clear
- The gravel-bed rivers need clearer direction/specification and consents to allow easier extraction where it's appropriate

4. Outcomes

Stage 1 of the Te Kāuru engagement process has highlighted a number of areas where further research, investigation, reporting or changes to the floodplain management plan will be required.

The Te Kāuru project team will develop a programme for addressing the issues raised by the community and workshop the various work streams with the Te Kāuru Upper Ruamahanga Floodplain Management Plan Subcommittee. The outcomes of this will be included in a summary report that will be provided to all riverside landowners and stakeholder groups.

A report that provides a specific response to each piece of feedback that was received will also be produced and made available to the public.

Work streams

Several pieces of work have been identified by the project team. Major work streams include:

Te Kāuru Upper Ruamahanga Floodplain Management Plan

1. Buffer benefit assessment

A study has commissioned from Massey University that will assess the impacts of giving the river more room within the buffer and vegetating the buffers. This report will specifically consider natural character, aquatic life, water quality and quantity, cultural values, erosion protection, plant species, and economic opportunities. It will also consider what we should monitor and review progress against.

2. Analysis of buffers

More information has been requested regarding the nature of the buffers, including an assessment of area of land within the buffers, current land use, and potential economic value. This can be undertaken by the project team immediately which can then be used for input into a more detailed plan for planting trees within the buffers.

3. Buffer implementation plan

More detail is needed with regard to:

- How long buffer establishment is expected to take
- How we plan to go about it
- How much it will cost
- Where the priority areas are
- Who will do the planting and maintenance
- Fencing, survey, and decision-making framework for land purchase

4. Pest plant and animal plan

The project team is aware of the risks of weeds and pest plants when establishing a vegetated buffer and will investigate options on how to resolve this. Feedback from existing river schemes indicates dissatisfaction with the level of weed management in existing buffers. Management outcomes, and cost implications, will be included in the proposed Floodplain Management Plan.

5. Design line review – what it will involve

The inner and outer management lines (design lines) have generally been in their current locations since the late 1990s. We plan to review a number of erosion “hot spots” and areas that are known to not reflect river behaviour well. We will also include areas where the design lines appear to be inconsistent. We will seek landowner input into the review in the form of contributing knowledge about the specific sites. We will engage a consultant to provide updated design lines in these particular areas, who will work with the Flood Protection Operations staff as well as landowners of these particular areas. This work could also include developing more management detail at existing hot spots and confirming our management approach for each stopbank, in particular on the Waipoua River. More clarity regarding the difference between Western vs Eastern Rivers

Work will be undertaken to assess where additional clarity regarding the difference between the Western gravel bed rivers and Eastern silt bed rivers can be included in Te Kāuru Volume 1.

Te Kāuru Upper Ruamahanga Floodplain Management Plan

6. Waipoua rural stopbanks

A number of rural stopbanks around the Paierau Road bridge are either wholly or partially located within the buffer. These stopbanks need to be removed from the buffer, either through moving stopbanks outside of the buffer zone, or retiring the stopbanks so that they are no longer maintained or protected from erosion (but not removed?).

For each of the stopbanks, Te Kāuru needs to specifically propose either retirement or retreat, and where necessary a proposed alignment for stopbank retreat.

7. Gravel extraction

A great deal of interest has been shown in how/ where, and whether gravel extraction will occur as part of the proposed FMP.

There is a need for clear information on how we intend to manage gravel in Te Kāuru.

8. Sediment movement and geomorphology

A number of questions and comments were mentioned during Stage 1 Engagement of Te Kāuru in relation to sediment movement and geomorphology. A piece of work around sediment movement, geomorphology, and possible effects of letting the banks erode is therefore required.

9. Why change? What are the drivers?

Feedback highlighted the need for more clarity to be provided regarding why we are proposing change and the drivers behind the change.

10. Funding/economics/rating

Work is required to:

- Provide more information around future costs, economic benefits and impacts
- Provide more detail and direction for future rating, and analysis to confirm this approach is sound

11. Designations/Land Access/WCDP

Work will be undertaken to:

- Address concerns from landowners about various land-related issues
- Confirm the approach (to be agreed with MDC) to future District Plan controls and whether we will seek designations
- Provide more detail for implementation including likely costs

12. Governance

Clarity will be determined regarding the governance structure for implementation of Te Kāuru

13. Whaitua alignment

Work will be undertaken to determine alignment with the Ruamāhanga Whaitua.

Te Kāuru Upper Ruamahanga Floodplain Management Plan

14. Rathkeale stopbank

The Rathkeale stopbank has been identified as a major project within Te Kāuru as the stopbank at Rathkeale is within the buffer, which is not in line with the aims of the Te Kāuru. An agreed approach for managing this is required.

15. Eastern and Western Rivers

Feedback was received from several people during engagement that the differences in levels of service, and different river management responses, between the Western gravel bed rivers and Eastern silt bed rivers was not clear enough. Work will be undertaken to make these differences more clear.

Outcomes of each of these work streams will vary from a full report, which will be available as a background report for the Te Kāuru project, to a memo outlining outcomes. Each of these work streams will likely result in a significant or minor change to the draft Floodplain Management Plan.



Report 2018.569
Date 21 November 2018
File CCAB-12-343

Committee Te Kāuru Upper Ruamāhanga FMP Subcommittee
Author Francie Morrow - Project Manager, Floodplain Management plans

Updated Waipoua flood hazard maps

1. Purpose

To provide information to the Subcommittee regarding the Waipoua flood hazard map process and mitigation options development.

2. Background

In 2015 Greater Wellington Regional Council (GWRC) and Masterton District Council (MDC) established a joint Waipoua Officers Working Group (WOWG) to refine the technical aspects of the flood hazard model for the Waipoua river and, in particular, the Masterton urban area with the aim of reaching agreement on flood maps.

Through the WOWG, GWRC and MDC agreed to a joint review of the hydrology of the Waipoua River to ensure the accuracy of information being used in the development of flood hazard mapping for Masterton. This was peer reviewed and agreed by the two councils in 2016. This revised hydrological data was used as an input to the hydraulic model. The hydraulic model was converted to a flexible mesh model which is the latest industry standard.

The WOWG has agreed on the various technical aspects of the hydraulic model including the 1998 calibration event, the peer review of the model build and calibration, and the sensitivity tests that were run. Using the peer reviewed model and agreed sensitivity scenarios, revised flood maps for the 1% annual exceedance probability (AEP) flood have been produced.

3. Updated draft flood maps

Four maps relating to the 1% AEP flood are included as [Attachment 1](#) of this report. These are the four flood maps that were used in public engagement:

- Current Flood Hazard Area – 1% AEP Baseline
- Current Flood Hazard Area – 1% AEP Flood Sensitive Area and base flood extent combined

- Future Flood Hazard Area – 1% AEP Including Climate Change and sensitivity scenarios showing flood depth
- Comparison between 2014 flood spread and 2018 flood spread

These maps are currently considered ‘draft’ by GWRC until they are independently audited.

MDC and GWRC are still considering an appropriate term to describe each of these maps (i.e., the term ‘flood sensitive area may not be appropriate), however there is agreement that:

- The maps are to be considered for option development for input into Volume 3 of the Te Kāuru Upper Ruamahanga Floodplain Management Plan
- Information from the maps is to be included by MDC when issuing Land Information Memorandum (LIMs)

Note that future use of the finalised maps for regulatory processes is still to be determined.

4. Engagement of draft flood map release

Stage 2a of public engagement on the draft Te Kāuru Upper Ruamahanga Floodplain Management Plan (Te Kāuru) ran from 1 November 2018 to 11 November 2018. The purpose of this period of engagement was to present updated draft flood maps for the Waipoua River through the Masterton urban area to the public.

The engagement took a number of forms, including:

- A small group information session with residents of Oxford Street (7 Nov)
- Stalls at the Masterton Farmers Markets on two consecutive weekends (3 and 10 November)
- Stalls at the Masterton Car Boot Sale on two consecutive weekends (4 and 11 November)
- A drop-in session at the Masterton Library (7 Nov)
- A letter and information drop to all residents and property owners in Oxford Street and affected areas of Akura Road
- Sit down with operators of Mawley Park
- Information in the Wairarapa Times Age (advertorial)
- Social media campaigns (including a brief [video](#))
- Information on the [Te Kāuru](#) (GWRC) and [Masterton District Council](#) websites

Overall approximately 140 people engaged with us at various events, with many more reached through the external publications such as the newspaper and social media.

Details of each of the engagement events are included in [Attachment 2](#) of this report.

5. Next Steps

The next steps include:

- The Waipoua Project Group and Te Kāuru Subcommittee to consider a short list of options for flood hazard mitigation with respect to the four maps presented;
- Engagement with the community regarding the short list of options in December 2018;
- A preferred combination of options to be developed and agreed by the Waipoua Masterton Urban Area Project Group;
- The preferred combination of options to be presented to the community for feedback; and
- GWRC and MDC to consider how the maps are used for regulation.

6. Communication

An engagement process was undertaken with the community for communication of the flood maps.

Communication of the flood management options with the wider community will be undertaken through Stage 2b and 2c of the Te Kāuru engagement process in late 2018 and early 2019.

7. Consideration of Climate Change

The matters addressed in this report have been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

7.1 Mitigation assessment

Mitigation assessments are concerned with the effect of the matter on the climate (i.e. the greenhouse gas emissions generated or removed from the atmosphere as a consequence of the matter) and the actions taken to reduce, neutralise or enhance that effect.

Officers have considered the effect of the matter on the climate. Officers recommend that the matter will have an effect that is not considered significant.

Officers note that the matter does not affect the Council's interests in the Emissions Trading Scheme (ETS) or the Permanent Forest Sink Initiative (PFSI).

7.2 Adaptation assessment

Adaptation assessments relate to the impacts of climate change (e.g. sea level rise or an increase in extreme weather events), and the actions taken to address or avoid those impacts.

GWRC plans for climate change in assessing the degree of future flood hazard and in determining an appropriate response. There are only specific, limited situations in which climate change is not relevant (for example, planning for present-day emergency management).

In assessing flood hazard and determining appropriate structural and/or non-structural response in areas subject to flood risk, GWRC is applying a rainfall increase of 20% to the flood hydrology in the Floodplain Management Plan to account for climate change over the next 100 years.

Guidance from the Ministry for the Environment will be updated from time to time and our approach will be revised in line with any updates.

8. 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.

8.1 Significance of 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 and engagement policy and decision-making guidelines into account. Officers recommend that the matter be considered to have low significance.

Officers do not consider that a form record outlining considerations of decision-making process is required in this instance.

8.2 Engagement

Engagement on the matters contained in this report aligns with the level of significance assessed including the establishment and processes of the WOWG.

9. Recommendations

That the Subcommittee:

1. *Receives the report.*
2. *Notes the content of the report.*

Report prepared by:

Francie Morrow
Project Manager –
Floodplain Management
Plans

Report approved by

Mark Hooker
Senior Project Engineer –
Floodplain Management
Plans

Report approved by:

Graeme Campbell
Manager, Flood
Protection

Report approved by:

Wayne O'Donnell
General Manager,
Catchment Management

Attachment 1: Updated Draft Waipoua Flood Maps

Attachment 2: Updated Waipoua flood hazard maps



Waipoua River: DRAFT 1% Annual Chance Base Flood Spread



Map 2:

greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

This map builds on the base scenario (Map 1) and includes the potential impacts of a variety of adverse scenarios. For example, the railway bridge being 20% blocked by debris, greater flows, or the river channel being 20% 'rougher' (e.g. rocks, trees impacting how easily the water passes through the channel). These scenarios have not all been factored in at once, but rather each run through the model separately and the results merged to create the map.

LEGEND :

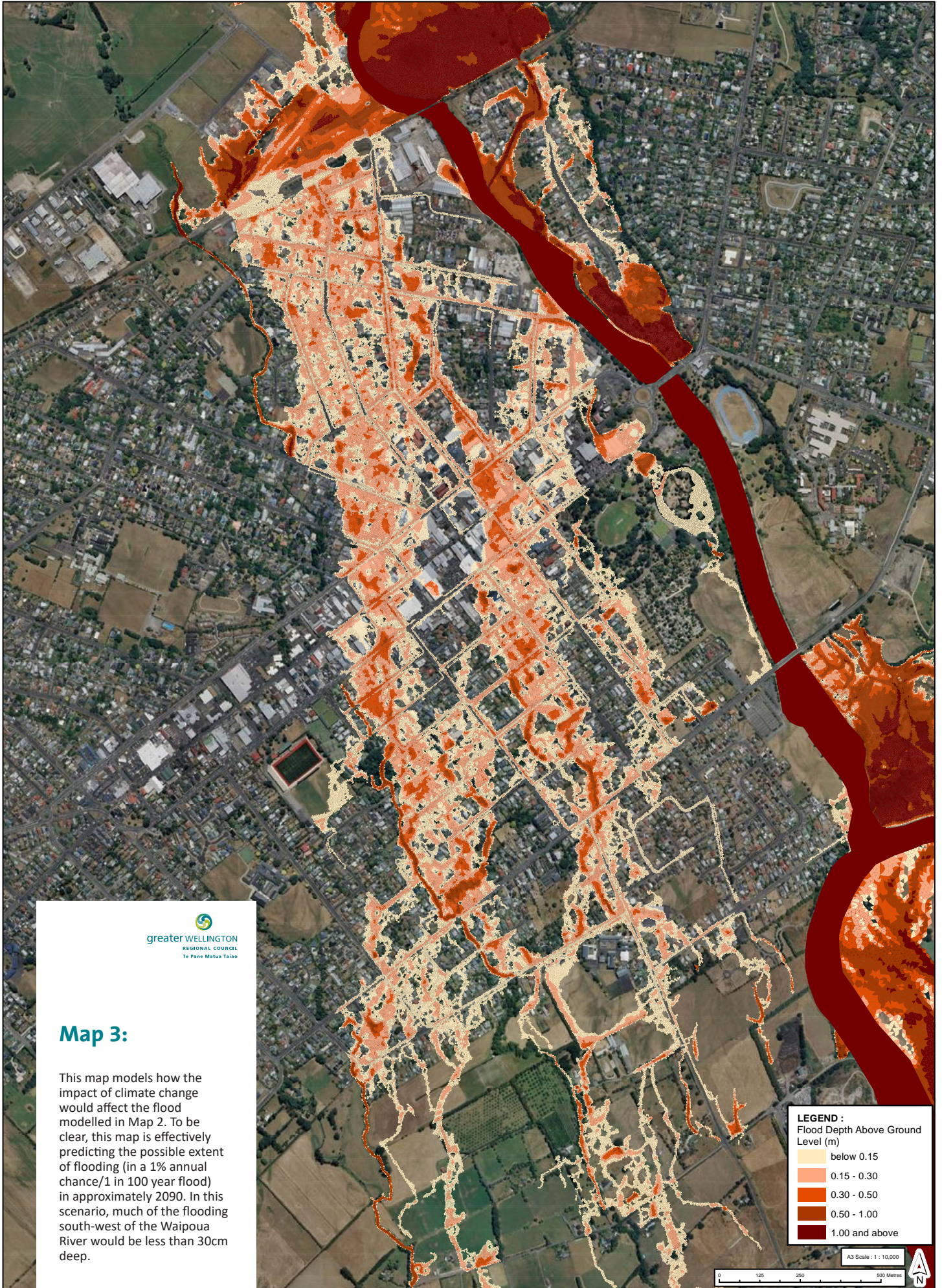
- 1% Annual Chance Base Flood Spread
- 1% Annual Chance Flood Spread with Sensitivity Scenarios

A3 Scale : 1 : 10,000

0 125 250 500 Metres

N

Waipoua River: DRAFT 1% Annual Chance Flood Spread with Sensitivity Scenarios and Base Flood Spread



greater WELLINGTON
REGIONAL COUNCIL
Te Papa Matua Taiao

Map 3:

This map models how the impact of climate change would affect the flood modelled in Map 2. To be clear, this map is effectively predicting the possible extent of flooding (in a 1% annual chance/1 in 100 year flood) in approximately 2090. In this scenario, much of the flooding south-west of the Waipoua River would be less than 30cm deep.

LEGEND :
Flood Depth Above Ground Level (m)

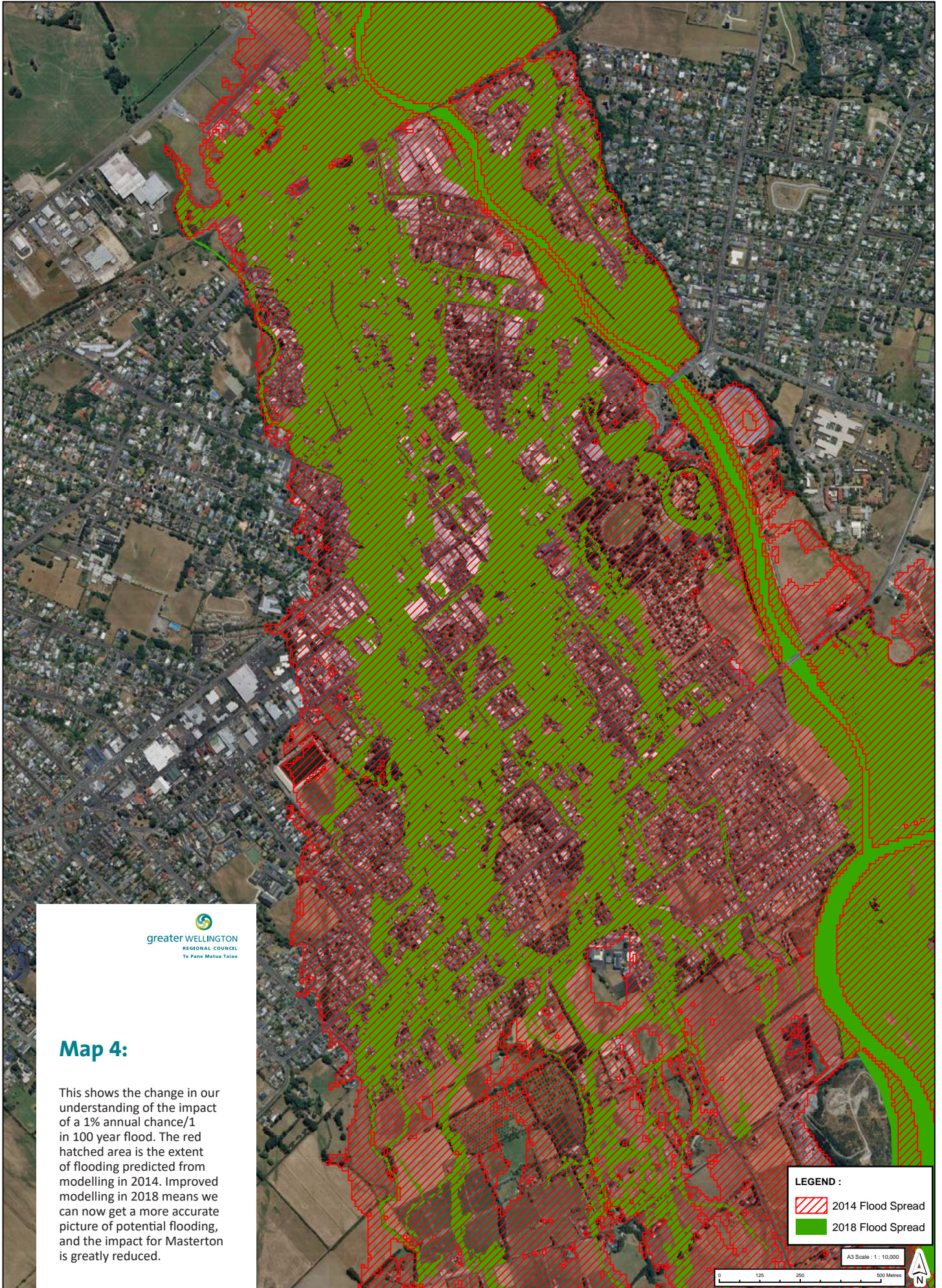
below 0.15
0.15 - 0.30
0.30 - 0.50
0.50 - 1.00
1.00 and above

A3 Scale : 1 : 10,000

0 125 250 500 Metres



Waipoua River: DRAFT Future 1% Annual Chance Flood Depth with Sensitivity Scenarios



Waipoua River: 2014 Flood Spread and 2018 Flood Spread

Te Kāuru Upper Ruamahanga Floodplain Management Plan

Summary of Stage 2a engagement: *Draft Waipoua flood maps release – November 2018*

1. Stage 2a Engagement process

Stage 2a of public engagement on the draft Te Kāuru Upper Ruamāhanga Floodplain Management Plan (Te Kāuru) ran from 1 November 2018 to 11 November 2018. The purpose of this period of engagement was to present updated draft flood maps for the Waipoua River through the Masterton urban area to the public. Option development for managing the flood risk is being undertaken and public input will be sought during the option development process in late 2018/early 2019.

The flood maps, information sheets, FAQs, and an outline of the engagement process was presented to and discussed with the Te Kāuru Subcommittee, Masterton District Councillors and the Environment Committee prior to the release of the maps. Information was also given to contact centres at each council and circulated to council officers.

During Stage 2a Engagement, the GWRC Te Kāuru project team, MDC officers and Subcommittee members attended various engagement to provide the community with the opportunity to discuss the draft flood maps.

The engagement took a number of forms, including:

- A small group information session with residents of Oxford Street (7 Nov)
- Stalls at the Masterton Farmers Markets on two consecutive weekends (3 and 10 November)
- Stalls at the Masterton Car Boot Sale on two consecutive weekends (4 and 11 November)
- A drop-in session at the Masterton Library (7 Nov)
- A letter and information drop to all residents and property owners in Oxford Street and affected areas of Akura Road
- Sit down with operators of Mawley Park
- Information in the Wairarapa Times Age (advertorial)
- Social media campaigns (including a brief [video](#))
- Information on the [Te Kāuru](#) and [Masterton District Council](#) websites

Overall approximately 140 people engaged with us at various events, with many more reached through the external publications such as the newspaper and social media.

2. Oxford Street residents information session

12 residents of Oxford Street attended an information session held at Mawley Park on the evening of 7 November 2018. These residents were directly invited to this information session through a letter and information drop on 1 November 2018. Nine of the 12 attendees were present from 5:30pm (the start of the session), so it was held in a similar format to the 'coffee group' meetings of the rural engagement. Five officers from GWRC as well as David Hopman from MDC were at the session presenting the information and responding to questions and comments from the group, for about one and a half hours, followed by some individual conversations with some residents.

Overall, there was a good level of interest from those that attended, but they noted that there is a level of mistrust about the information and strong feelings of 'more local knowledge is required'

Te Kāuru Upper Ruamahanga Floodplain Management Plan

were expressed. Several residents were interested in knowing more about the technical aspects of the modelling and may request reports.

It is important that this group of residents are kept informed of any progress on this Waipoua options and are provided further specific opportunity for input.

3. Farmers Markets and Car Boot Sales

A range of people from across the district were engaged with at the farmers markets and car boot sales, with a variety of responses to the maps. Opinions on a range of topics relating to GWRC and MDC activities were received. 124 people were spoken to at these four events.

Some comments and discussion at these events included:

- There is no flood risk – it's fake news
- Thank you, I'm glad someone is thinking about all of this
- I think people need to accept the risk if they choose to live next to a river
- What an interesting job you have – this is all very informative
- Concerns regarding insurance
- Concerns regarding new subdivisions in flood prone areas
- Are you considering planning controls in flood prone areas?
- Will this be on the LIM?
- The modelling is misleading as there are a number of future assumptions not correctly accounted for; bed degradation and surface runoff
- GWRC are reducing the amount of dozer work within rivers which is causing an accumulation of gravel therefore an increase in flood risk
- Gravel extraction is causing the low river levels at the moment, you remove the armouring layer as so the water seeps back into the ground
- Please maintain swimming holes in the rivers

At the Car Boot Sale on Sunday 11 November, Louise had a lengthy (approximately 1.5 hours) discussion with one of the residents who attended the Mawley Park information session. The resident came down specifically to further discuss some of his concerns.

4. MDC Library drop in session

A drop in session was held at the Masterton Library on the morning of Wednesday 7 November 2018. Four people were engaged with at this session, none of whom came down specifically to speak with us. One resident in particular was interesting to speak to, who is 90 years old and has been living in or around Oxford Street for most or all of his life.

5. Print media

Press briefings were held with separately for journalists from the Wairarapa Times Age and The Dominion Post/Stuff on Tuesday 30 October 2018. A press release was provided to them, as well as sit down explanation of the maps, what they mean, and the process undertaken to develop them. The information was embargoed until 6:00pm on Wednesday 31 October 2018.

Several follow up questions from the reporters were asked and answered.

Te Kāuru Upper Ruamahanga Floodplain Management Plan

Two newspaper articles were published.

Stuff/Dominion Post

An article was published on Stuff.co.nz at 6:00pm on 31 October 2018. This article was also in the Dominion Post on page 5 on 1 November 2018.

The article was misleading in comparing the current flood risk (without climate change or allowances for uncertainty) with the 2014 flood map that included an allowance for climate change and uncertainty. It was requested that the captions relating to the flood maps on Stuff were changed to reflect this. This request was fulfilled.

Wairarapa Times Age

An article was published in the Wairarapa Times Age on 1 November 2018 with the headline “Flooding risk evaporates”.

6. Social Media

There were several posts regarding the flood maps (including a short video) and the engagement events published on the GWRC Facebook page and one on the MDC Facebook page. These posts were viewed by between 937 and 5,577 people. The video was viewed over 2,241 times.

7. Summary and next steps

Stage 2a of the Te Kāuru engagement process has highlighted that there is on-going mistrust of flood risk mapping in the Masterton community. There was also a general appreciation from some community members of assessing the risk, and planning for management of the risk in the future.

It will be important during the next phases of engagement that there is continued communication of the updated flood maps and clarity regarding plans to manage the risk.

The residents of Oxford Street will need to remain a key stakeholder group for particular engagement and consideration.

There was interest in the management options and a desire to be able to provide feedback on the options as part of the development process.

Future stages of engagement

Stage 2b Engagement

Options for managing the flood risk through Masterton are currently being developed by WSP Opus with the Waipoua Project Group and Te Kāuru Subcommittee. Once a short list of options has been agreed, it is proposed that these will be given to the community for comment/feedback in early to mid-December 2018. This feedback would then be brought back to the Project Group/Subcommittee for consideration.

Stage 2c Engagement

Once a preferred combination of options is agreed by the Project Group and Subcommittee, ‘Volume 3: Outcomes for the Masterton urban area’ will be developed. Te Kāuru Stage 2c Engagement will

Te Kāuru Upper Ruamahanga Floodplain Management Plan

commence once Volume 3 is drafted. Stage 2c Engagement will seek feedback on Volume 1 and Volume 3, and is envisaged to take place in February-March 2019.

This will likely follow a similar format as Stage 1 consisting of various engagement events such as attendance at the Farmers Market, drop-in centres, and possible small group or 'coffee group' discussions.

Stage 3 Engagement

Once feedback has been received on all three volumes of Te Kāuru, the volumes and appropriate feedback will be incorporated into a single proposed Floodplain Management Plan. This will then be presented to the community for a formal consultation process.



Report 2018.567
Date 21 November 2018
File CCAB-12-341

Committee Te Kāuru Upper Ruamahanga FMP Subcommittee
Author Francie Morrow, Project Manager – Floodplain Management Plans

Te Kāuru Upper Ruamahanga FMP Project Manager's Report

1. Purpose

To update the Subcommittee regarding general items that influence or are a part of the Te Kāuru Upper Ruamahanga Floodplain Management Plan (Te Kāuru), as well as outlining other flood protection activities that are being undertaken within the catchment area by Greater Wellington Regional Council (GWRC).

2. Environment Committee endorsement

Following endorsement of Volumes 1 and 2 from the Te Kāuru Subcommittee at a meeting on 5 June 2018, the documents were presented to the GWRC Environment Committee for endorsement and approval for public engagement on 21 June 2018.

Francie Morrow presented the key points of Volumes 1 and 2. Following questions and discussion, the Environment Committee endorsed the documents. This enabled the project team to proceed with Stage 1 of the engagement process for Te Kāuru. A summary of the feedback received from the community during this engagement process is included as a separate report at this meeting (report number 2018.568).

3. Wairarapa Committee workshop

A workshop was held with the Wairarapa Committee on 7 August 2018. The workshop received feedback on the engagement undertaken to date and allowed an opportunity for the Committee to further discuss the contents of Volumes 1 and 2 of Te Kāuru. The feedback received has been noted and was reported at the Wairarapa Committee meeting on 14 August 2018. The Wairarapa Committee meeting resulted in an invitation to Councillors from MDC and CDC to participate in the engagement events.

An update was also given to a Wairarapa Combined Councils forum on 26 November 2018 in Carterton.

4. Masterton urban area flood risk from the Waipoua River

Draft maps for the Masterton urban area flood hazard from the Waipoua River were released on 1 November 2018. The maps and engagement process for releasing the maps are included as a separate report at this meeting (report number 2018.569).

5. Project programme

The Te Kāuru Subcommittee have previously emphasised the desire to have a completed floodplain management plan by mid-2019.

Agreement on the extent of the flood hazard maps has now been reached by the Waipoua Officers Working Group. The technical work and number of Officer Working Group meetings required to reach this agreement have put pressure on the project programme and this is acknowledged as a real risk to the project. The Te Kāuru project team and Waipoua Project Group are committed to working with the Subcommittee to progress option development efficiently whilst still ensuring a robust process is followed.

Stage 1 of the engagement process on Volumes 1 and 2 has also led to numerous pieces of additional work that will be need to be undertaken prior to the proposed floodplain management plan. There is also a risk that these could cause delays to the programme if not managed effectively.

The key dates in the project programme include:

- December 2018: Engagement Stage 2b – short list of Waipoua projects
- 13 February 2019: Subcommittee meeting – Approval draft Volume 3 for engagement
- Late February 2019: Engagement Stage 2c – Proposed option combination for Masterton urban area
- March 2019: Subcommittee approval of Proposed (Volumes 1, 2 & 3 combined) FMP
- Early April 2019: Engagement Stage 3 - Proposed FMP consultation
- Late April 2019: Hearings
- 28 May 2019: Subcommittee workshop – workshop the final FMP
- 12 June 2019: Subcommittee meeting – official approval and recommendation to the Environment Committee
- 20 June 2019: Environment Committee meeting for adoption of Te Kāuru FMP

6. Operations and maintenance update

The Flood Protection department has been engaged in a number of works within the Te Kāuru Upper Ruamahanga area. A summary of these works for each river is provided below.

Waipoua

- Planting programme 340 willow poles
- Layering of 460m of willow trees on problem riverside corners
- Beach clearing of vegetation of beaches in upper reach of Waipoua with bulldozer

Waingawa

- Groyne construction of six large groynes to protect ongoing erosion into buffer of native trees with high biodiversity values at cross section 26 (Photo 1)
- Two river erosion bays developing below South Rd that were threatening to go beyond outer buffer line, gravel groynes constructed & willows planted between to stabilise the sites (Photo 2)
- Gravel extraction on problem beaches below South Road
- Planting programme – 700 willow poles planted
- Island vegetation clearing with bulldozer in upper reaches of river



Photo 1: Waingawa gravel groynes at cross section 26



Photo 2: Waingawa gravel groynes and planting

Upper Ruamahanga – Mt Bruce

- Planting 1300 willow poles
- Vegetation clearing of beaches with bulldozer

Upper Ruamahanga – Te Ore Ore

- Gravel extraction off problem beach opposite MDC waste water treatment plant to take pressure off right bank erosion (Photo 3)



Photo 3: Te Ore Ore gravel extraction from problem beach

Upper Ruamahanga – Gladstone

- Planting 1300 willow poles

7. **Waiohine Floodplain Management Plan update**

Significant activities since the last report have included:

- A meeting with the Waiohine Action Group, which gave strong support for the recommended “inland” stopbanking option for Greytown
- Ongoing liaison with the Friends of the Waiohine River, particularly about how the community should be involved in ongoing river management and implementation of the FMP;
- Further developing the concept of the “living plan” and considering potential triggers for adaptive management;
- A meeting with NZTA to discuss the effects the State Highway has in the rural area between Greytown and the river, and some possible solutions involving lowering or maintaining the height during future works;
- An outline of our approach to river management, which involved making room for flood waters and adopting a flexible vegetated buffer approach for managing the river alignment; and
- A survey and concept developed for protection and drainage works at the urupa adjacent to State Highway 2 and Beef Creek.

Next steps include:

- Finalising flood maps;
- Possible external review of the process to date;
- Recommending an approach to achieving a 20-year level of protection to houses in the rural area;
- Refining concepts of funding, i.e. who should pay; and
- Recommending some approaches to the ongoing river management to be tested in the community.

The Project Team facilitator estimates progress at 85% with a degree of uncertainty around the submission/consultation and final plan drafting stage. We hope to have the main recommendations nailed down by the end of 2018 and be ready to draft the FMP after that.

8. **Ruamāhanga Whaitua update**

In June 2018 the Ruamāhanga Whaitua Committee agreed a draft Whaitua Implementation Programme (WIP) report which was made available for public comment from 13 June to 11 July 2018. 41 email comments and 17 substantive survey responses were received. All comments received were collated, summarised and considered, and as a result the Committee agreed a small

number of new recommendations and made many small clarification changes to the WIP.

In August 2018 the Ruamāhanga Whaitua Committee members agreed by consensus (all members agreed), all the recommendations and content in the final Ruamāhanga WIP. The WIP was then presented to Greater Wellington Regional Council on 16 August 2018. The WIP can be downloaded here: <http://www.gw.govt.nz/assets/Ruamahanga-Whaitua/Final-Ruamhanga-WIP-August-2018-Pdf-version.pdf>.

GWRC councillors have referred the regulatory recommendations from the WIP to Te Upoko Taiao – Natural Resources Plan Committee for incorporation into the Proposed Natural Resources Plan through a plan change/variation process. The non-regulatory recommendations will be further developed by GWRC in conjunction with relevant external organisations.

9. Water Wairarapa update

Since October 2017, the Water Wairarapa project initiated a series of investigations to establish what effect the combination of climate change and the Whaitua's water limitation recommendations will have on activities and water uses that depend on water reliability in the Ruamahanga valley floor.

All component reports have been completed and collated into a summary report. The component reports covered: effects of climate change and the Ruamahanga Whaitua recommendations; aquatic ecological and iwi cultural perspectives; social and health; and future land use and regional economic impacts.

The most significant overarching finding is the relative effects of the Whaitua recommendations and climate change projections. The latter has a far more dominant detrimental effect on both supply and demand of water. This finding applies to both rural and urban catchments.

10. Consideration of climate change

The matters addressed in this report have been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

10.1 Mitigation assessment

Mitigation assessments are concerned with the effect of the matter on the climate (i.e. the greenhouse gas emissions generated or removed from the atmosphere as a consequence of the matter) and the actions taken to reduce, neutralise or enhance that effect.

Officers have considered the effect of the matter on the climate. Officers recommend that the matter will have an effect that is not considered significant.

Officers note that the matter does not affect the Council's interests in the Emissions Trading Scheme (ETS) or the Permanent Forest Sink Initiative (PFSI)

10.2 Adaptation assessment

Adaptation assessments relate to the impacts of climate change (e.g. sea level rise or an increase in extreme weather events), and the actions taken to address or avoid those impacts.

GWRC plans for climate change in assessing the degree of future flood hazard and in determining an appropriate response. There are only specific, limited situations in which climate change is not relevant (for example, planning for present-day emergency management).

In assessing flood hazard and determining appropriate structural and/or non-structural responses in areas subject to flood risk, GWRC is applying a rainfall increase of 20% to the flood hydrology in the FMP to account for climate change over the next 100 years.

Guidance from the Ministry for the Environment will be updated from time to time and our approach will be revised in line with any updates.

11. The decision-making process and significance

No decision is being sought in this report.

11.1 Engagement

Engagement on this matter is unnecessary.

12. Recommendations

That the Subcommittee

- 1. Receives the report.*
- 2. Notes the content of the report.*

Report prepared by:

Francie Morrow
Project Manager –
Floodplain Management
Plans

Report approved by:

Mark Hooker
Senior Project
Engineer – Floodplain
Management

Report approved by:

Graeme Campbell
Manager, Flood
Protection

Report approved by:

Wayne O'Donnell
General Manager,
Catchment Management