



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

TE KĀURU
UPPER RUAMĀHANGA
DRAFT FLOODPLAIN MANAGEMENT PLAN
SUMMARY FOR COMMUNITY ENGAGEMENT
2018



| | |
|--|-----------|
| WE WANT YOUR FEEDBACK | 2 |
| WHAT'S THE ISSUE? | 2 |
| Reading the volumes | 2 |
| OUR VALUES | 3 |
| OUR VISION | 3 |
| OUR AIMS | 4 |
| WHY ARE WE DEVELOPING TE KĀURU? | 4 |
| What are the risks and limitations? | 4 |
| WHAT WOULD ACTUALLY CHANGE? | 5 |
| A Revised Buffer Management Approach | 5 |
| Governance | 6 |
| Funding Structure | 6 |
| RESPONSES & METHODS | 7 |
| GENERAL RESPONSES | 8 |
| RURAL ISSUES & RESPONSES | 9 |
| MAJOR PROJECT RESPONSES | 10 |
| HOW CAN I BE INVOLVED? | 11 |
| HELPFUL DEFINITIONS | 12 |



Your feedback is
important – we want
to know if Te Kāuru is
heading in the
right direction

WE WANT YOUR FEEDBACK

We want your feedback on the draft Te Kāuru Upper Ruamāhanga Floodplain Management Plan (Te Kāuru) for all areas except the Masterton urban area. We will be seeking your feedback for the Masterton urban area at a later date.

This document has information on how and why we're suggesting a change to our approach. There's also an explanation of what kind of flood protection measures are available, some proposed options, and instructions for how you can share your thoughts.

Your feedback is important – we want to know if Te Kāuru is heading in the right direction.

You can download a full copy of the plan and look at the maps at www.TeKauru.co.nz.

WHAT'S THE ISSUE?

The Te Kāuru catchment includes the Upper Ruamāhanga River upstream of the Waiohine confluence, and its tributaries the Waipoua, Waingawa, Taueru, Whangaehu and Kopuaranga Rivers.

The catchment has a history of flooding. Flooding can be dangerous and cause damage to private property and community assets.

Processes for managing flooding and erosion have been in place in the catchment for some time. After working with community representatives we realised, our plans could do more to reflect wider local values and we want to take a long-term view of managing the whole catchment's flood and erosion issues.

Reading the volumes

TE KĀURU IS IN THREE VOLUMES:

Volume 1:

Why we need this plan – This volume describes why we need Te Kāuru, the vision, the aims, the suite of responses and common methods that will be used, how the plan will be implemented, and how the community can contribute.

Volume 2:

Outcomes for rural areas – This volume looks at the different location specific management options to be delivered across the rural areas of the Te Kāuru catchment.

Volume 3:

Outcomes for Masterton urban area – This volume will outline the management outcomes in relation to the Waipoua River through the Masterton urban area. This volume has not been written yet.

OUR VALUES

Rivers are the lifeblood of our community, in fact the name Wairarapa means 'glistening waters'. However, sometimes our greatest assets can cause our biggest risks.

As with all rivers, the rivers that make up the Te Kāuru catchment have a diverse range of values attributed to them. Such values are reflected in the natural character of the rivers and contribute to our social, economic and cultural well-being. Throughout the Te Kāuru catchment, specific values recognised include: contribution to identity and livelihood; sustaining health and wellbeing; recreation values; and provision for food and resources.

With the help of community representatives from Masterton District Council, Carterton District Council, Ngāti Kahungunu ki Wairarapa, Rangitāne o Wairarapa, and the wider community (through the Te Kāuru Upper Ruamahanga Floodplain Management Plan Subcommittee) we identified the following values for the catchment:



HERITAGE



CULTURAL



RECREATION



LANDSCAPE



LANDUSE



ECOLOGY

OUR VISION

These values helped us create a vision:

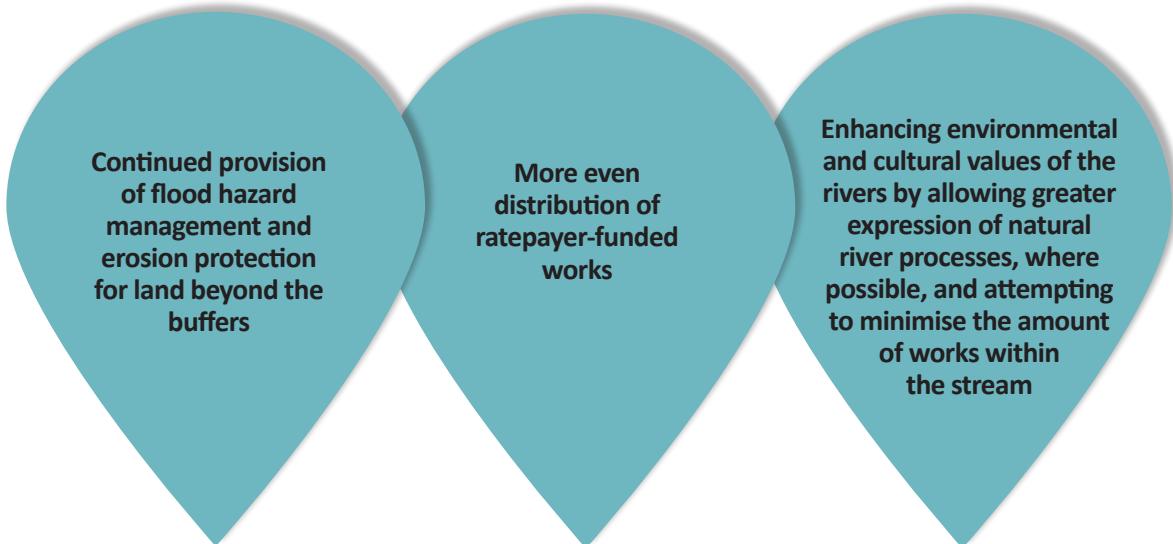
'A connected, resilient, prosperous and sustainable community, proud of its rivers, that is involved in managing flood risks in a manner that recognises local identity and protects, enhances or restores natural and cultural values'

OUR AIMS

Alongside our values and vision, we identified five aims which describe what we want to achieve through Te Kāuru:



WHY ARE WE DEVELOPING TE KĀURU?



What are the risks and limitations?

We acknowledge there are a number of risks in doing things a new way, such as:

- The prospect of losing productive land within the existing buffer may not be supported by all landowners
- Monitoring and having to intervene later may cost more and be more intense for the river environment compared with more frequent, smaller interventions
- There is potential for an increase in pest animals and plants within larger planted buffers

There are some limitations we had to consider when drafting the proposed Te Kāuru documents:

- The location of existing assets such as bridges, roads, houses
- Balancing the environmental and cultural values with the costs of potential loss of productive land

WHAT WOULD ACTUALLY CHANGE?

The approach we're proposing will allow rivers more space to flow naturally within the channel and defined buffer.

If the proposals go ahead, it will mean people who own land or live alongside rivers will have a level of certainty, and protection from erosion outside of the buffers. However, there may be erosion to their land within the buffers from time to time.

It's important to remember Te Kāuru proposes a long-term approach to flooding and erosion issues. Plans could take decades to implement and changes won't be visible right away.

As Te Kāuru seeks to recognise a wide range of the community's values in how we manage the rivers, we are also proposing to spread the share of the local costs of river management works across the wider community rather than falling mainly on adjacent landowners. Te Kāuru also outlines how this change in costs may work.

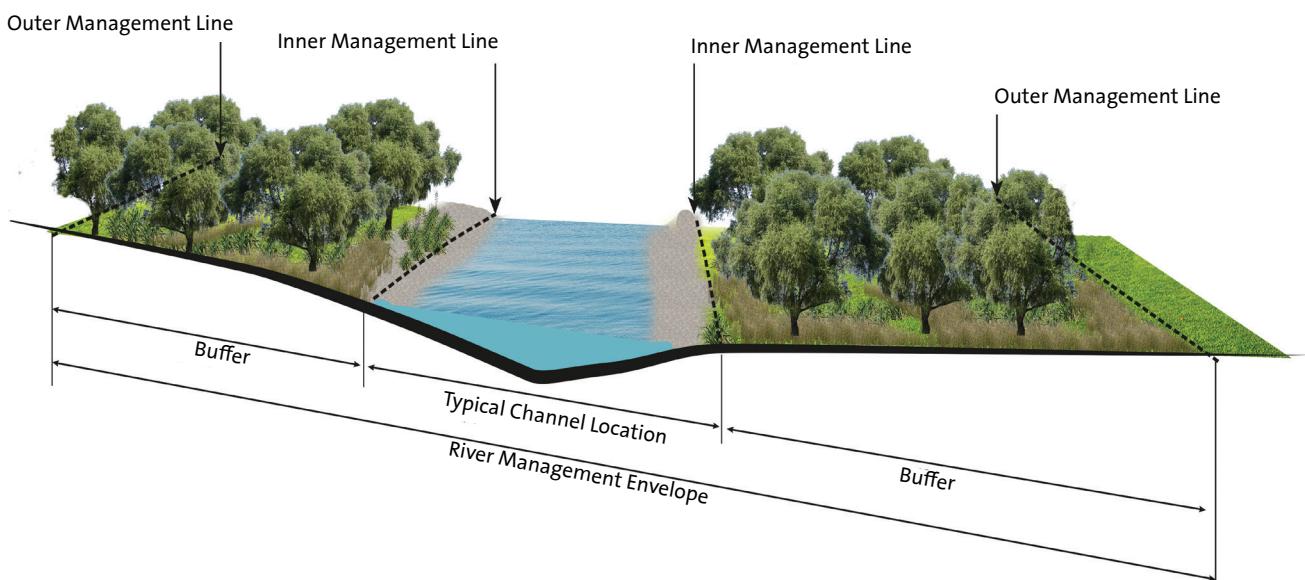
5

A Revised Buffer Management Approach

Te Kāuru is suggesting a shift in approach to the management of buffers and is proposing to give the river more space to carry out its natural processes. Buffers are the area between the inner and outer management lines. The current expectation is that the river will be managed to keep it within the inner management line, which means that in many cases people are using land right up to the river's edge.

The proposed approach is to allow the river to move within the whole buffer. Riverside landowners will still get a level of protection from river erosion outside of the buffer, but will be encouraged to accept erosion of land within the buffer from time to time. Te Kāuru also proposes to plant the buffers with mixed vegetation of willows and natives to help reduce the amount of erosion to the buffers. In many places this planting has already occurred, the proposal to plant all the buffers in Te Kāuru will ensure all the riverside land is being treated equally.

The revised proposed approach also indicates that where possible retreat of removal assets out of the buffer should occur. It is hoped that this shift in approach will mean there will be less intervention and will see improved practices of management to minimise environmental impacts to the river.



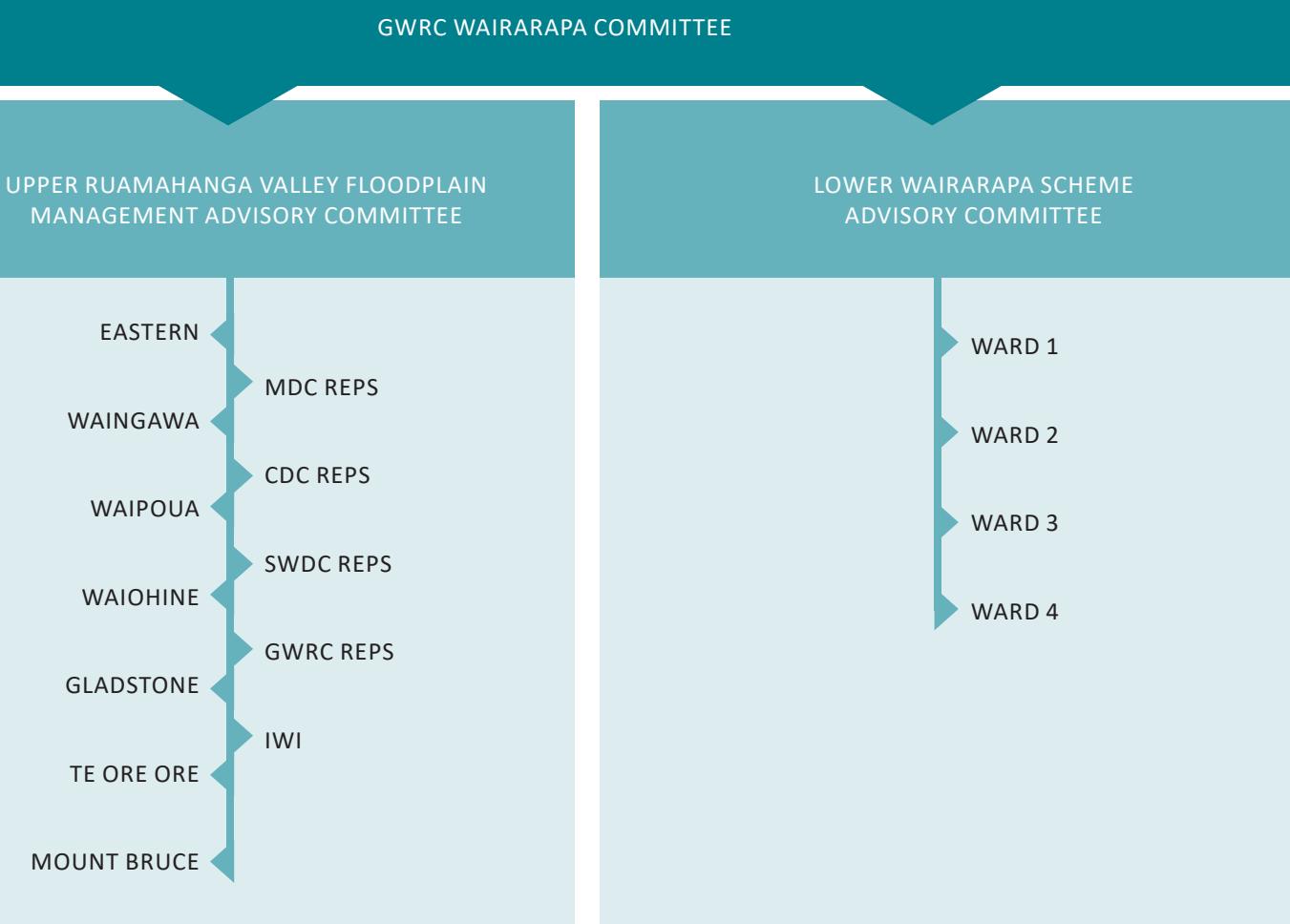
Governance

Existing Structure

The current governance structure includes eight existing river management schemes which cover a large portion of the floodable land within the catchment. Each scheme has a committee which is made up of directly affected landowners adjacent to the respective river or reach of river, as well as GWRC and territorial authority representatives.

Proposed Structure

The proposed governance structure under Te Kāuru is outlined below. It is proposed that a formal Advisory Committee be established. Existing scheme committees would still continue to operate as they have done, but would report up to the Advisory Committee and in turn the Wairarapa Committee instead of the GWRC Environment Committee. The Advisory Committee would meet more frequently than the scheme committees do (perhaps quarterly) in the initial stages of Te Kāuru implementation.



Funding Structure

There are significant costs associated with the proposed responses in Te Kāuru. A change from the current funding structure is proposed for the implementation of Te Kāuru. Through this draft FMP process, we are seeking agreement on the new approach. Feedback received from engagement will inform the final proposed funding approach.

Currently, landowners within the schemes fund a portion of the total scheme revenue. Revenue also comes from a regional rate, infrastructure owner direct contributions, and other (such as gravel royalties or reserve interest). However, to recognise and reflect the wider benefit of implementation measures, it is proposed that landowner contributions be spread over a wider rate base (for example, all ratepayers in Carterton and Masterton Districts).

RESPONSES & METHODS

At the moment, there are two distinct kinds of river schemes operating within the Te Kāuru catchment. Schemes in the western side of the valley are for larger, gravel-bedded rivers. On the eastern side rivers are smaller, silt-bedded rivers draining from the Eastern Hills.

Due to the large area Te Kāuru covers, and the different types of land use and rivers, a combination of flood and erosion management responses have been developed.

We use categories for the types of response we're proposing to implement:

STRUCTURAL The development of structures and other physical works designed to keep flood waters away from existing development. Stopbanks and floodwalls are examples of structural works that are typically designed to a flood standard, e.g. 1% AEP. Structural responses typically require ongoing bank-edge works and channel management to ensure they remain effective.

RIVER MANAGEMENT River management responses guide our ongoing physical interventions in the river environment, and as such they are the sharp end of Te Kāuru for many people and groups who have an interest in the river environment. River management refers to works within the bed of the river or on the river berms. All river management works must be undertaken in accordance with our River Management Code of Practice.

River management common methods include buffer management, river bed level monitoring, pool/riffle/run sequences, isolated works support, and mixed vegetated plantings within buffers.

PLANNING AND POLICY Planning and policy responses include land use controls through the district plan, designation of the buffers, a rural stopbank policy to retreat or abandon stopbanks from buffers, and strategic land purchase.

EMERGENCY MANAGEMENT Emergency management plays a very important role in floodplain management planning. When a flood emergency occurs, how well a community copes depends entirely on how prepared it is. The Wellington Regional Emergency Management Office (WREMO) works with the community to increase its resilience through public education programmes. Together Greater Wellington and WREMO provide a flood warning service for the Wellington Region. Flood warning helps people to take their own actions to avoid risk.

ENVIRONMENTAL ENHANCEMENT Environmental enhancement responses help us understand the natural values and character of the river environment. This, in turn, encourages environmental restoration and maintenance efforts.

As part of the implementation of Te Kāuru, an Environmental Strategy will be developed. The strategy aims to coordinate projects required to deliver the environmental, amenity, and cultural outcomes of Te Kāuru that are beyond those achieved solely through flood and erosion risk management. It also helps us coordinate groups involved in managing the rivers. Additionally, a Community Support Officer is being proposed, as well as working with care groups and clubs.

GENERAL RESPONSES

Below is a summary of the proposed general responses. For more information see Volume 1 (page 47) or visit the corresponding section listed below.

| ACTION | DESCRIPTION | PRIORITY | COST | VOLUME 1 SECTION REFERENCE |
|--|--|----------|----------------------------------|----------------------------------|
| Ongoing river management work | Examples include: <ul style="list-style-type: none">• repairing rock walls & groynes• pre & post flood checks• debris and weed clearance at critical points• maintenance of mixed plantings along the river | High | Approximately \$920,000 annually | n/a |
| Develop bed level envelopes for Waipoua, Waingawa, and Ruamāhangā Rivers | Develop guidance on how to respond to areas where the bed is dropping (degradation) and where the bed is filling in (aggradation) | High | \$200,000 | 3.2.3 |
| Develop pool, run and riffle envelopes | Develop areas of pool/riffle/run sequences in different river reaches | High | \$50,000 | 3.2.5 |
| Wairarapa Combined District Plan Review | Developing flood mapping and contributing policy advice for input to District Plan | High | \$200,000 | 3.3 |
| Develop Environmental Strategy | Develop a strategy and action plan for specific enhancements in the river environments | High | \$200,000 | 3.5.1 |
| New governance and funding structures | Establish new governance and funding structures required to implement Te Kāuru | High | \$50,000 | 4.1 & 4.3 |
| Design line review | Review the inner and outer management lines that create buffer | High | \$200,000 | 4.4.2 |
| Develop framework for decision-making following major floods | Develop an agreed and understood framework for how works will be prioritised following a major flood | Medium | \$30,000 | 3.3.5 |
| Strategic land purchase and asset retreat | Funding available for purchase of land for buffer establishment and other future major project responses or environmental enhancements | Medium | \$5million | 3.3.8 |
| Emergency Management and flood warning improvements | Work with WREMO on emergency management planning by providing technical advice and support. Look at new flood warning infrastructure possibilities | Medium | \$100,000 | 3.4 |
| Community Support Officer | Potential part or full-time resource to establish/support community groups and help to deliver recreational, cultural, and environmental outcomes | Low | \$50,000 per annum ongoing | 3.5.2 |
| Major review of Floodplain Management Plan | A formal review of Te Kāuru's performance | Low | \$300,000 | 4.4.7 |

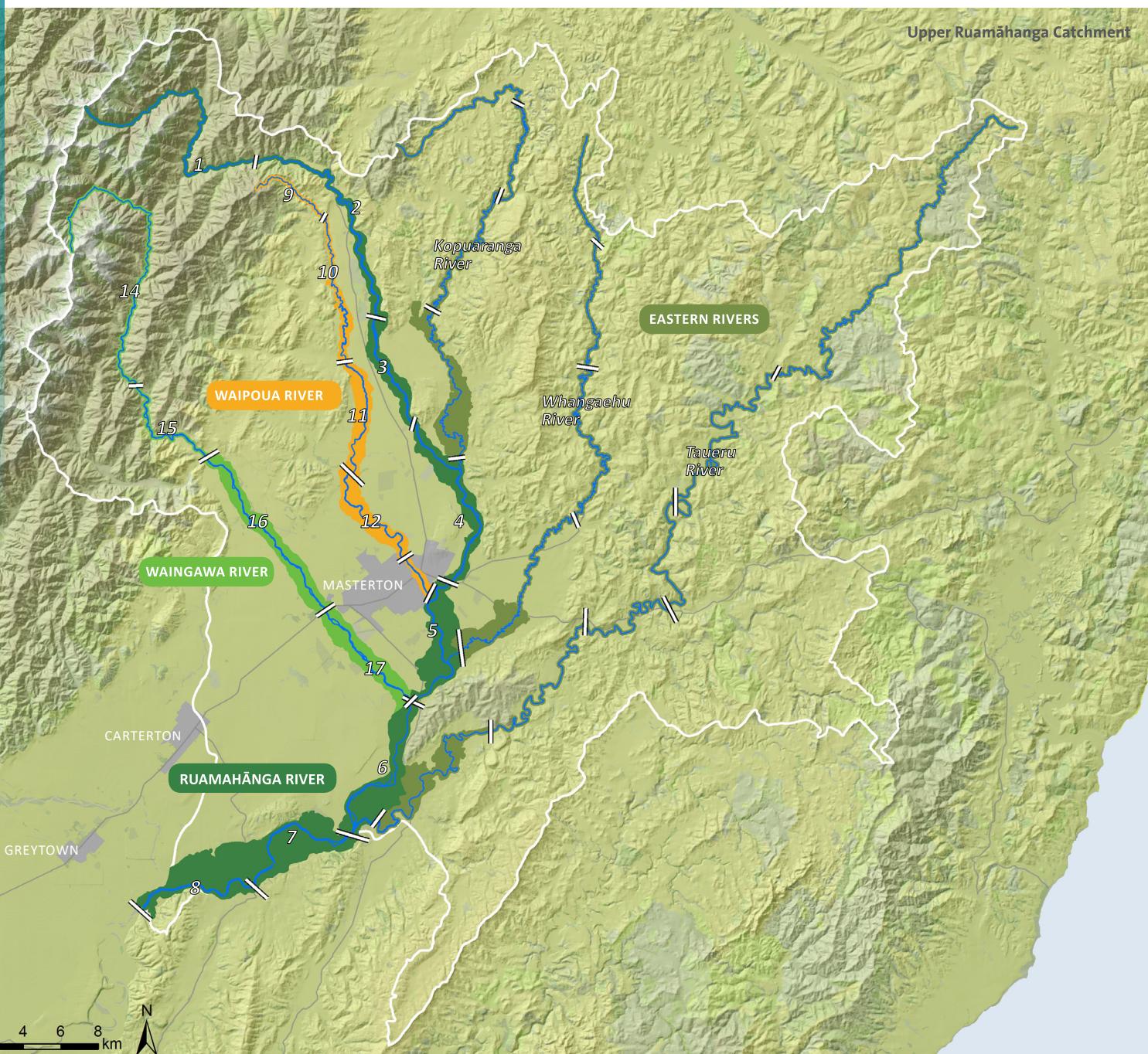
RURAL ISSUES & RESPONSES

The values, issues and responses directly relating to specific locations within the Te Kāuru catchment are set out in Volume 2. The rivers and reach numbers used in Te Kāuru are shown below. The responses and methods to these issues are discussed above and are individually addressed in Volume 2.

The common methods that are proposed for use across the whole catchment are:

- Code of Practice
- River edge envelope (buffers)
- River bed level monitoring
- Recognition of buffers as a river management method
- Pool, riffle, run envelope
- Historic channel lines
- Isolated works support
- Mixed vegetative planting
- Alternative land-uses within vegetated buffers
- Land-use controls
- Designations
- Flood hazard maps
- Rural stopbanks policy
- Scheme funding decision making policy
- Abandonment/Retirement of assets
- River management access
- Strategic land purchase
- Protection against deforestation in upper catchment
- Community resilience
- Flood forecasting and warning system
- Environmental strategy
- Community Support Officer
- Care groups and clubs

Certain issues also have a specific response outlined in Volume 2.



MAJOR PROJECT RESPONSES

10 major projects have been identified in response to known problems and situations. A summary of these projects is provided in the table below, and more detail on each project can be found in Volume 2.

| NAME | PROPOSED MANAGEMENT MEASURE | PRIMARY REASON FOR PROPOSED RESPONSE | PRIORITY | COST | FUNDING | VOLUME 2 PAGE REFERENCE |
|--|--|---|----------|---|---------------------|-------------------------|
| River Road Properties | Increase bank protection to river edge at River Road and widen river channel | To increase protection to River Road, Masterton | High | \$575,000 | Capital Funding TBC | 30 – 31 |
| River Road Properties | Easements and other legal costs as required | To allow construction/maintenance of groynes and widening of the river | High | \$50,000 | Capital Funding TBC | 30 - 31 |
| MDC Water Supply | Targeted operational river management with revised emergency management plan | To manage risk of erosion posed to the water supply pipeline | High | Varying, but magnitude of \$5–20,000 per annum generally, with allowance for targeted emergency works as required | Operational funding | 94 - 95 |
| Homebush Waste Water Treatment Plant | Resilience works within headworks facility (plinth for generation, raising electrical works) | To increase resilience of HWWTP headworks in case of stopbank overtopping | TBC | \$50,000 | Capital Funding TBC | 32 - 33 |
| Paierau Road | Permanent warning signs and improved flood forecasting | To increase the safety of road users by providing permanent warning signs and increasing lead time for road closure to 2.5 hours | Medium | \$20,000 | Capital Funding TBC | 74 - 75 |
| South Masterton Stopbank and Urban Gateway | Contaminated site assessment, visual improvements within the buffer, establishment of public access to the river | Appealing gateway to Masterton, recreational access and contaminated site management | Medium | \$100,000 for contaminated site assessment | Capital Funding TBC | 96 - 97 |
| Rathkeale College Stopbank | TBC | To increase flooding protection to Rathkeale College and reduce erosion risk to stopbank and Rathkeale College | Medium | \$1,000,000 TBC | Capital Funding TBC | 22 - 23 |
| MDC Water Supply | Increase bank protection to river edge at Black Creek | To increase protection to water supply pipeline | Low | Up to \$300,000 | Capital Funding TBC | 94 - 95 |
| South Masterton Stopbank | Retreat existing stopbank to less erosion prone location outside the buffer | Stopbank is non-critical asset from flood hazard perspective but may be important for preventing contaminated material entering the river | Low | \$485,000 | Capital Funding TBC | 96 - 97 |
| Hood Aerodrome | Rock line connecting terrace with existing rock groyne at the end of the runway | To increase protection to the runway and avoid any contaminated material being eroded into the river | Low | \$755,000 | Capital Funding TBC | 104 - 105 |

HOW CAN I BE INVOLVED?

You can provide feedback on Volumes 1 and 2 via the following options:

Attend a coffee group meeting

Visit the Te Kāuru have your say website

Visit a drop in centre

Chat with a member of the TKURFMP Subcommittee

Submit feedback online at www.TeKauru.co.nz

Email your feedback to TeKauru@gw.govt.nz

0800 496 734
www.TeKauru.co.nz



Engagement on the Masterton urban area responses (Volume 3) will be undertaken later in 2018.

For information on when and where coffee group and drop in centres will be, or for any other information visit www.TeKauru.co.nz or call **0800 496 734**

Please note the final date for feedback is
16 September 2018

HELPFUL DEFINITIONS

| | |
|-----------------------------|---|
| 1%AEP: | A 1% Annual Exceedance Probability (AEP) flood event has a one percent or one-in-100 chance of being equalled or exceeded in any one year. On average, this is expected to occur once in 100 years, based on past flood records, though in reality it could happen at any time. |
| AMENITY VALUE: | Natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic values, and cultural and recreational attributes. |
| ACTIVE BED: | The area of a river channel which is affected by the river processes of flows, sediment transport and alteration of bed form during flood events. |
| BUFFER: | A defined area along the edge of the river that may be prone to erosion. Buffers planted with vegetation to help control bank erosion are called vegetated buffers. |
| CATCHMENT: | The area of land from which water drains into a particular river, stream or drain. |
| CHANNEL: | The channel is a topographic feature that contains, or has contained, flowing water. |
| FLOODPLAIN: | The low-lying, flat or gently sloping land adjacent to a river channel which can be covered in water when the river floods. |
| GROYNES: | Structures built into the riverbank, which stick out into the river to push water away from the bank edge and can be made of rock, concrete or fallen trees. One end is anchored to the bank. Groynes help prevent erosion and trap silt which helps build up the bank. |
| ROCK LINE (RIP-RAP): | Rock placed onto and below the river bank to prevent erosion of the bank, bed and berm. |
| RIVER BERMS: | The strip of land beside the river. If there are stopbanks, it is the land between the river and the stopbank. The berm is a natural extension of the main river and can carry water when the river is high. |
| TRIBUTARY: | A stream or small river that flows into a larger river. |

