

Rathkeale College Workshop

The intention is for the sub-committee to determine a preferred option based on its fit within the overarching aims within the Draft FMP. Rathkeale College forms part of the Ruamahanga Scheme within the Double Bridges to Te Ore Ore Reach.

Discussion during the workshop was centred on understanding how the FMP tools might work. This included broad cost implications and indicative modelling. Options developed include applying the vegetated lines and buffer common tools and removing stopbanks and rock armouring work from within buffer strips.

Other considerations related to the intended level of service, i.e. do playing fields may have a different level of service from buildings? Through this, FMP Tools could be developed alongside locations and outcomes where there might be exceptions. The following documents this discussion under each FMP Aim:

Economic

- The ongoing costs of rock armouring and remedial river bank work would require a high ongoing cost. This option is not in alignment with FMP outcomes. Were this option pursued, Rathkeale College might be asked to contribute to the higher level of protection.
- The loss of part of the playing fields will result in an economic cost associated with the loss of existing land and the facilities provided/available at the college.
- Protecting buildings provides economic certainty to Rathkeale College to ensure their ongoing business activity and reduces damage potential.
- Field remediation costs following a flood event will vary and may be high and ongoing where these are protected to a lower level of service.

Resilient Community

- The risk to life is considered to be low.
- Buildings and playing fields require protection at varying levels.
- There are other cost / nuisance effects to be taken into account including impacts on the ongoing use of playing fields.
- Flooding of the dormitory buildings would potentially displace boarders or other uses of those buildings for a period of time. Social disruption cost.

Cultural

- Rathkeale College has several important cultural sites within its boundaries.
- Shifting stop banks has potential to modify cultural sites and care needs to be taken to ensure sites and cultural values remain protected. This concern is not necessarily in relation to any specific option tabled with further discussion needs to be had with Jim Rimene and archaeologists.
- Potential exposure of sewage ponds to flooding effects under some options. These currently are vulnerable to some degree.
- It is not known how impacts differ between changing the degree to which cultural sites may become inundated with flood water. Cultural sites do not currently require protection from flooding.

Natural Spaces / Processes

- Continued use of rock lining is inconsistent with allowing the natural processes to occur along the river corridor and 'giving the river room'.

- Moving the stopbanks outside the river enables natural erosion processes along the river to occur.

Community Needs / Amenity

- Impact limited to playing fields (and cricket oval). No further community aspirations identified.

MCA Option Development

Based on the discussion generated during the workshop, an MCA was considered following the workshop to help facilitate the development of a preferred option. This is set out in **Appendix 1**, using a traffic light system to rank identified concerns.

Alternate Options Discussed

In addition to options considered the following was also discussed:

- There may be an ability to keep status quo and lift buildings where there are dorms.
- This might be the location where FMP, 'makes the battle with the river' expend more to protect the current line – potential issues for ongoing cost and impacts up and down the river and on opposite bank.
- Consider capital funding through borrowing.
- Consider who pays.

Summary

Based on the workshop, an understanding of the Preferred Option was to be developed around the following:

- Protect buildings
- Allow fields to be flooded from time to time (more frequently than current)
- Create more room for buffer strips
- Determine changes in stopbank locations in consultation with college and with Iwi to respect cultural sites
- If additional funding required, land owner to be consulted
- If land owner wants additional protection, regional council might not fund work. Regional Council to determine how it deals with land owners who want to do different outcomes to FMP.

Common Tools Feedback

During the meeting, the sub-committee had an opportunity to comment on the common tools developed to date. **Questions (Q)** and **Comments (C)** from the committee which arose in relation to the common tools are documented below, alongside bullet points used to document officers' responses:

OPERATION MAINTENANCE TOOLS

River edge Envelopes and Historic Channels

- The approach to river edge envelopes and historic channels has been developed as follows:
 - Outer management Line = public and used to communicate level of service
 - Inner Management Line = used as internal management tool guiding priorities for river management work.
 - Historic line = shown for information purposes only and provides the best guess about where the historic extent of flooding along the river has occurred.

C. Ensuring protection beyond outer management line provides better economic certainty for land identified outside buffer zones.

Q. Why are 100 year erosion risk lines not shown?

- Lines deal with erosion. There is another tool to indicate flood extents, including 1:100 year flood.
- Erosion predictions tied to 100 year flood events are practically impossible to model land predict.
- The indication of area where river has been indicates extent which may be prone to flooding and associated erosion.
- Flooding is dealt with in another tool included in DP i.e.
 - High risk flooding will have no houses
 - Moderate risk flooding would require a minimum floor area
- Agreed to consider including flood maps as well so that distinction is made clearer.

River Bed Envelopes

- This can identify problem but can't say how area needs to be addressed without further local consideration.
- Whilst gravel extraction can be used to reduce bed levels, there are more limited tools available to increase bed levels where this issue is identified.

Q. Do we need to be more certain, it seems we do?

- The options to address identified problems are quite varied.
- Some options can cause more problems (e.g. stopbanks can increase downstream effects). We therefore might want to ensure such options are not available.

- Options to increase gravel levels in river bed might require less erosion control upstream so that gravel loads in river are increased.

C. Agreed that committee need to tackle longer term process. This might entail more guidance about gravel extraction and more space for erosion.

Q. Should FMP have a higher tolerance for braided rivers? Without this it removes natural processes. Design process still seems to indicate single channel.

- Gary Williams had been engaged to provide greater understanding around management of braided rivers.

Pool, Run and Riffle Count

- A lot of work to be done to determine how this approach will best work.
- It is intended that this will work on a reach scale.
- Parameters acknowledge that river management seeks to achieve a more diverse environment. This includes greater diversity along the cross sections of the river as well as the overall count which can be identified in plan view.

C. Sub-committee generally very happy and endorse this approach.

Q. Do the presence of braided rivers give us another habitat type which we are taking out? Does braiding as well as backwaters, oxbow increase habitat?

- As above. Gary Williams has been engaged to give greater clarity around this issue.

Q. What is the definition of a braided river?

- Rivers can form braided, semi-braided or single thread.
- Rivers throughout the Wairarapa generally have more limited sediment to achieve truly braided form.
- The scarcity of braided rivers in the Wairarapa, means that they should be managed.

Q. Can pool include recreation element?

- Yes it should be there and will be included.

Q. How does pool, run, riffle concept work with fresh water management units? Design seems vertical along a channel.

- Gradient is looked at as part of informing river width and design meanders.
- This can also align with erodible material and clarification of freshwater management material.

Policy Development

- About a third of stop banks sit within buffer area.
- Policy around stopbanks is therefore required to facilitate abandoning or retreating stopbanks, determining which stopbanks should be kept and what level of service is provided. Rathkeale is a good test example

Mixed Vegetation Planting

- No Quantum. No timeline. Looking at providing cost and benefit of this:
- C. **The need to look at biodiversity funding externally a concern. Consider securing funding from GWRC as well.**

Public Ownership of River Margins

- GWRC should flag this, even if it takes 150 years to happen.
- Q. **Is it the best spend? Who pays? Is it gifted?**
 - Might not be purchase, e.g. requirement at time of subdivision.
- C. **How this is worked through still presents some issue.**
- Q. **Does this relate to stop banks on public land also?**
 - There is some problem in that these should occur outside the river margin
 - It was considered that these should also be included to enable public ownership of such assets in the long term.

ENVIRONMENT ENHANCEMENT TOOLS

Environment Strategy

- Great way of capturing community aspirations, e.g. community projects.
- 10 year horizon might change aspirations.
- C. **Generally considered to form a great outcome of FMP.**

Position Statement

Indicating support of maintaining / enhancing values.

- Q. **Can this address gap between forest park and scheme boundary?**
 - Yes. Can provide support for connection works, cross links.

Community Support Officer Position

- C. **Funding supported**

Care Groups

Something that enables communities to take ownership of river areas.

- C. **Good value for money. Not a big cost to establish, support and facilitate groups. Role could be stronger.**
- Q. **Like friends of the Waikanae?**
 - Yes even stronger. Like land care groups.

PLANNING TOOLS

Land Use Control

Matrix of good management. Stakeholders coming together to discuss good management.

Q. How does this fit with FMP Brief?

- Boundaries of FMP coming up against wider issue of Whaitua Process.
- It is seeking to address flood and erosion as well as other benefits where possible, e.g. recreation, erosion.
- To ensure other benefits touches edges of what good land management is.

C. If people brought into flood management in hinterland, this needs to consider good land management.

EMERGENCY MANAGEMENT TOOLS

Community and Emergency Awareness

C. This is fundamental

Appendix 1: Rathkeale College MCA

	Status Quo	Option 1	Option 2	Option 3
	<ul style="list-style-type: none"> Maintain stop bank in current position 	<ul style="list-style-type: none"> Retreat stop bank behind current buffer 	<ul style="list-style-type: none"> Retreat stop bank behind new buffer 	<ul style="list-style-type: none"> Retreat stop bank behind playing fields
Economic	<ul style="list-style-type: none"> Considerable increased cost, level of service of ongoing rock armouring expense 	<ul style="list-style-type: none"> Increased level of service, cost of rock armouring Loss of part of the playing field 	<ul style="list-style-type: none"> Loss of part of the playing field Reduction in likelihood of loss to private property 	<ul style="list-style-type: none"> Cost of loss of field for risk of affecting part of season following flooding Cost of tidying playing fields following flood event Reduction in likelihood of loss to private property
Resilient Community	<ul style="list-style-type: none"> Least adaptable to change Potential increased impacts up stream and down stream No risk to essential public infrastructure / community health and safety 	<ul style="list-style-type: none"> Potential impacts upstream and downstream No risk to essential public infrastructure / community health and safety 	<ul style="list-style-type: none"> Adaptable to change No risk to essential public infrastructure / community health and safety 	<ul style="list-style-type: none"> Most adaptable to change No risk to essential public infrastructure / community health and safety
Cultural	<ul style="list-style-type: none"> Least responsive to interconnectedness of natural systems Uncertainty around cultural values in terms of protection from river 	<ul style="list-style-type: none"> Potential impacts on cultural sites Uncertainty around relationship with cultural values in terms of protection / exposure from river 	<ul style="list-style-type: none"> Potential impacts on cultural sites Uncertainty around relationship with cultural values in terms of protection / exposure to river 	<ul style="list-style-type: none"> Potential construction impacts on cultural sites Uncertainty around relationship with cultural values in terms of exposure to river Best represents the interconnectedness of natural systems
Natural Spaces / Processes	<ul style="list-style-type: none"> Requires most rock armouring Least room for river, natural processes 	<ul style="list-style-type: none"> Would require ongoing rock armouring Reduced room for river, natural processes 	<ul style="list-style-type: none"> Ensures the river has room Opportunities for natural processes / ecology 	<ul style="list-style-type: none"> Ensures the river has room Opportunities for natural processes / ecology
Community Needs / Amenity	<ul style="list-style-type: none"> No change in river access or safety No reduction in playing fields 	<ul style="list-style-type: none"> Reduction in playing fields Increased stop bank height along edge of buffer strip 	<ul style="list-style-type: none"> Reduction in playing fields Reduced stop bank height 	<ul style="list-style-type: none"> Reduction in playing fields Lowest stop bank height further from river

MCA Traffic Light

In terms of applying an MCA approach to determining preferred options, applies traffic light system as follows:

- Potential flaws.
- Undecided or Localised Issues
- Achieves Criteria