Programme Update:

- Programme to prepare draft FMP by December 2016. This will focus on common tools.
- Framework setting out what draft FMP will look like to be prepared by September 2016.
- Final FMP to be prepared by June 2017.

Waipoua Update:

- Have reached agreement regarding issues with MDC officers. This now needs political buy in.
- Revise Flood Maps to be issued to new council following elections.

Waingawa SH2 Gateway / Stopbank

Background:

- Industrial area between SH2 Bridge and Waingawa Railway Bridge forms focus of flooding concern.
- East of this, predicted flow over Ngaumutawa Road is less than 10cm depth. If you take climate change predictions out of model, it does not overtop this road. The risk to property damage east of Ngaumutawa Road is therefore low risk.
- Ponding in industrial area occurs because of SH2.
- Old timber yard is a SLUR site.
- True Left Bank (TLB) stopbank - Scheme asset or private asset is uncertain?
- There is a similar stopbank on TLB, not identified on scheme asset register, what is FMP stance on this?
- Operation plan is also needed for now, needed, i.e. if/when stopbank is damaged, what work is required? Principles behind this are more important than having the design in place. Ie;
- Ideal outcome if stopbank collapse occurs is to remove businesses and turn land into floodplain.
- Minor damage to stopbank should be repaired
- etc

Economic

- Uncertainty around how much to buy land vs. cost of building a new stop bank vs damages saved.
- If there is a cost to defer to later there may be a cost to maintain status quo. This has been minimal to date, but may increase if the river changes course and begins to erode bank. Cost associated with erosion control.
- Need to talk to land owners to understand future aspirations. Understood that existing shed near location of stopbank may be intended to be removed.

Resilient Community

- The risk to life is considered to be low. Flooding concern is focussed within industrial area land.
- Were erosion to continue beyond existing stop bank, there may be implications to SH2. This would require NZTA involvement.
- Concern with risk of flooding to Solway School, however this falls outside the identified flood risk area.

Cultural

- No specific cultural sites identified / discussed.
- Previous discussion identified that the river contributes towards *Mano o te wai* in this important gateway location - the recognition of fresh water as a natural resource whose health is integral to the social, cultural, economic and environmental well-being of communities

Natural Spaces / Processes

- Keeping stopbank out of river works with principle of giving river room.

Community Needs / Amenity

- Site contributes important gateway function to Masterton
- Opportunity to improve access to the river at this point and along river to south of SH2 Bridge (Part of Three Rivers Trail concept)
- No formal river access exists in this location
- Gravel extraction yard could be approached to tidy their river boundary

Committee Recommendations:

- To relocate decision to later date - this area is a low priority and risk is relatively small now.
- Consider opportunities to discuss future aspirations with land owner.
- To identify how aesthetic and access considerations might work in this gateway location.
- Matter to sort with FMP implementation.

River Road Properties

Background:

- Risk is related to erosion. Issue is whether current level of risk is acceptable or additional work is needed to fix this going forward.
- Erosion risk currently managed through rock groynes and gravel management.
- 6 properties along River Road are closest to river margin and therefor are at the greatest level of risk.
- There is a significant issue with the narrow channel in the Ruamahanga upstream of the Waipoua confluence. There is channel widening work on the right bank of

the Ruamahanga upstream of the Waipoua that is being developed and will require significant alterations to the River Road, Waipoua bank once the Ruamahanga channel is widening as intended.

Economic

- River channel alignment needs to be maintained to ensure that downstream channel alignment works.
- Not much opportunity to relax bank edge
- Rock is expensive and but can provide further assurance that it will not wash away in a big event
- Identifying erosion risk to properties may make it difficult for them to sell in the future.
- The risk currently sits largely with land owners with expectations as part of the scheme. There may be an opportunity to provide an assurance to land owner that their land would be bought out should erosion present an ongoing issue.
- Installing a rock bank provides another form of ongoing insurance.

Resilient Community

- Acquiring properties at greatest risk to erosion, relieves some pressure in opportunities available.

Cultural

- No specific cultural sites discussed. Confluence of river provides significant cultural site.

Natural Spaces / Processes

- Recognised that addressing erosion risk in this location will result in flow on effects downstream. This location is considered important to hold given potential for subsequent erosion to continue downstream.
- There may be opportunities to work with the overflow on the opposite side of the river. There is implications in terms of existing pine plantation established in this area.

Community Needs / Amenity

- It is unacceptable to allow erosion to affect cemetery and old landfill site.
- Need to address land use changes in terms of developing overland flow path option on left bank, e.g impacts on pine plantation accretion land and the privately build bunds/stopbanks that are not part of the flood protection scheme.

Recommendations:

- This area is a high priority and work needs to ensure ongoing protection of the Ruamahanga right bank downstream of the Waipoua confluence for the purpose of ensuring erosion protection for the cemetery and landfill.
- Consider discussions about future aspirations with land owners.
- This is a high priority design to be completed for proposal in the draft FMP. Current Operations work is actively widening the Ruamahanga channel which will have significant impact on the Waipoua confluence and River Road bank. Such work has implications on all management aspects of this reach.

Other related reach issues to be resolved

- Channel width throughout the Henley Lake area

Masterton South - Waingawa Stopbanks

	Option 1 • Repair existing stopbank in situ when required	**Option 2** • Relocate existing stopbank outside design fairway when significant damage occurs	**Option 3** • Raise road centre line of Ngaumutawa Road	**Option 4** • Remove existing stopbank in its entirety
Economic	- Could be expensive to fix if it fails - Does not cost much currently	- Implications for loss of local business	- Concern with loss of protection of new business land (new shed)	- Concern with loss of protection of new business land (new shed)
Resilient Community	- Risk limited to industrial land - Not adaptable to change	- Risk limited to industrial land - Less adaptable for future changes	- More adaptable to change - Risk limited to industrial land - (NBL Concern with flooding of school falls outside flood hazard area)	- Risk limited to industrial land - (NBL Concern with flooding of school falls outside flood hazard area)
Cultural	- Nothing discussed	- Nothing discussed	- - Nothing discussed	- - Nothing discussed
Natural Spaces / Processes	- Does not give the river room	- Fits with principle of giving river room	- Fits with principle of giving river room	- Fits with principle of giving river room
Community Needs / Amenity	- Reduce room for aesthetics	- Provides space for aesthetics	- Provides increased space for aesthetic and potential recreation access at gateway	- Provides increased space for aesthetic and potential recreation access at gateway

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

Masterton River Road Properties

	Option 1 • Maintain status quo (rock groynes, willow buffers, gravel management)	**Option 2** • New rock line for 200+ metres	**Option 3** • Purchase 6 properties to reduce risk	**Option 4** • Encourage overflow path on true left hand side of river
Economic	- Repeated work means that costs build up over the long term - No long term protection guarantee	- Estimate $300k – $500k - No long term protection guarantee	- Would work with ongoing rock work - Provides more time for erosion events without threatening life or property	- Could be more cost effective in the long term.
Resilient Community	- Limited options to manage erosion risk in this location - Protecting erosion in this location protects against further erosion down stream	- Protecting erosion in this location protects against further erosion down stream	- Further options to protect against further erosion down stream	- Concern with potential downstream erosion effects.
Cultural	- Protect cemetery	- Protect cemetery	- Protect cemetery - More space for confluence	- Protect cemetery - More space for confluence
Natural Spaces / Processes	- Requires fighting river in critical location - Managing erosion risk predominantly relies on hard engineering	- Requires fighting river in critical location - Managing erosion risk predominantly relies on hard engineering	- Gives river further room	- Works with natural processes of river
Community Needs / Amenity	- Limited amenity options	- Limited amenity options	- Opportunity to improve access along river margin (3 rivers trail concept)	- Limited amenity options

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