

## BRIDGE Project second meeting Waiau Uwha 14 September



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### Today's programme:

- Introductions
- Reminder about BRIDGE Project
- What we saw, heard and learnt from first meetings
- Proposed approach to defining the extent of the river bed
- Values assessment for the river reach (Boffa Miskell)
- How should we manage for the multiple values, in particular through RMA regulation (discussion)
- LUNCH



## Background to BRIDGE Project

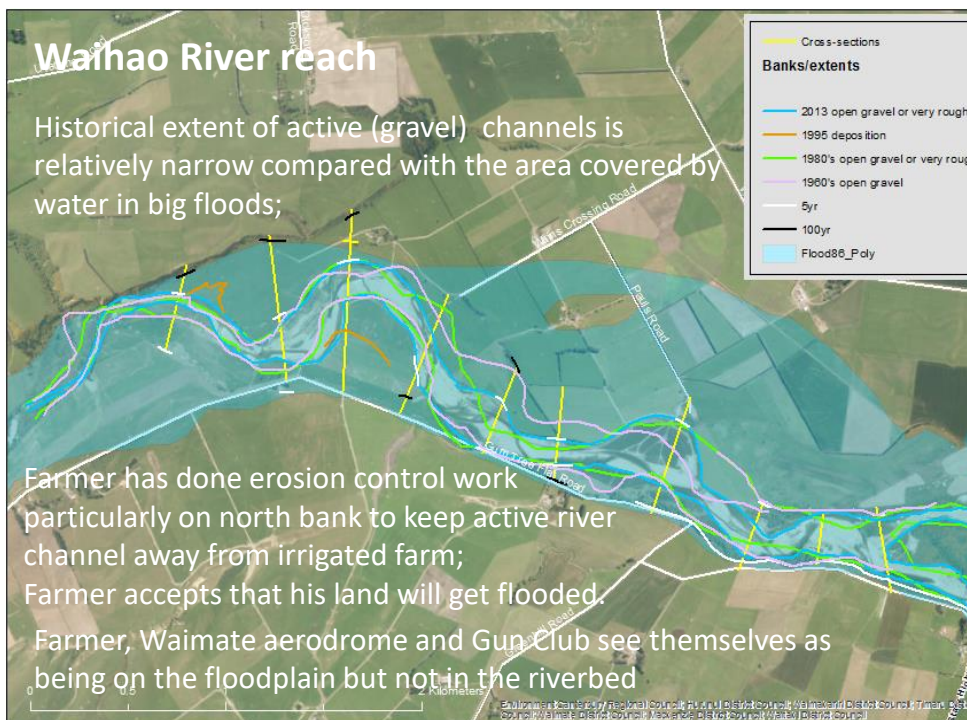
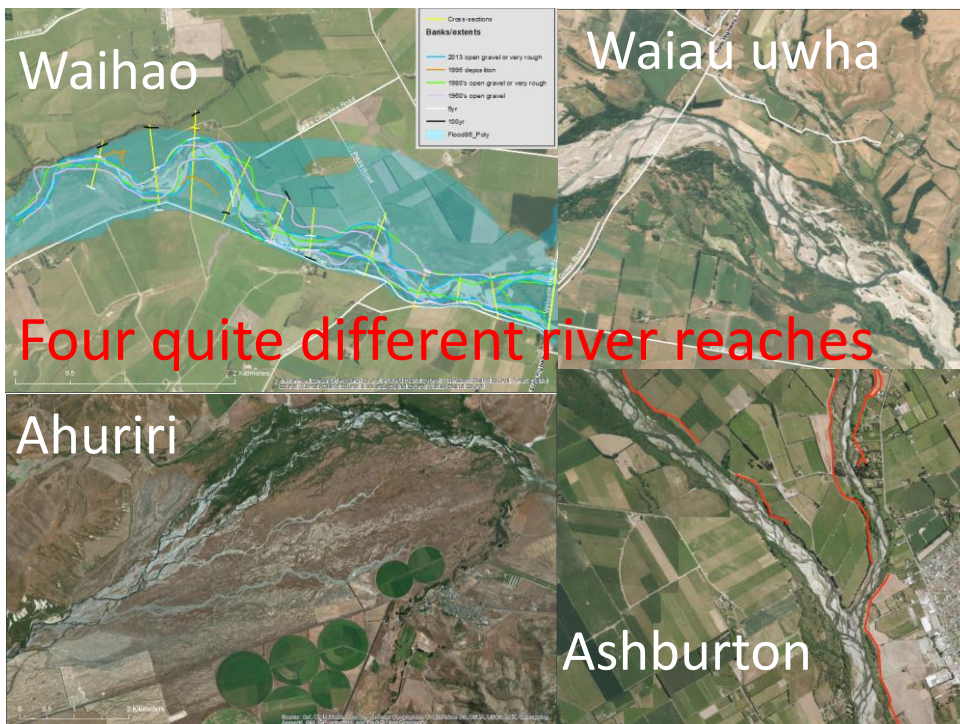
- The rules about what land owners can or cannot do are different if you are inside or outside the “river bed”;
- The RMA definition of river bed (“... *the space of land which the waters of the river cover at its fullest flow without overtopping its banks*”) is difficult to apply in braided rivers;
- There is uncertainty over the extent of the “river bed” due to the dynamic nature of braided rivers.



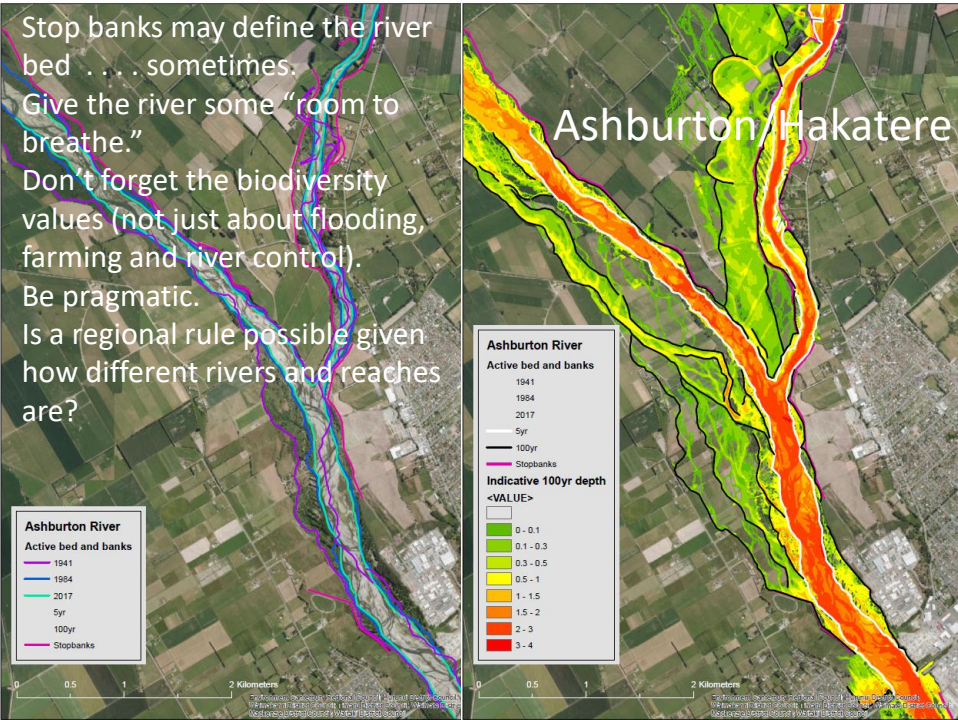
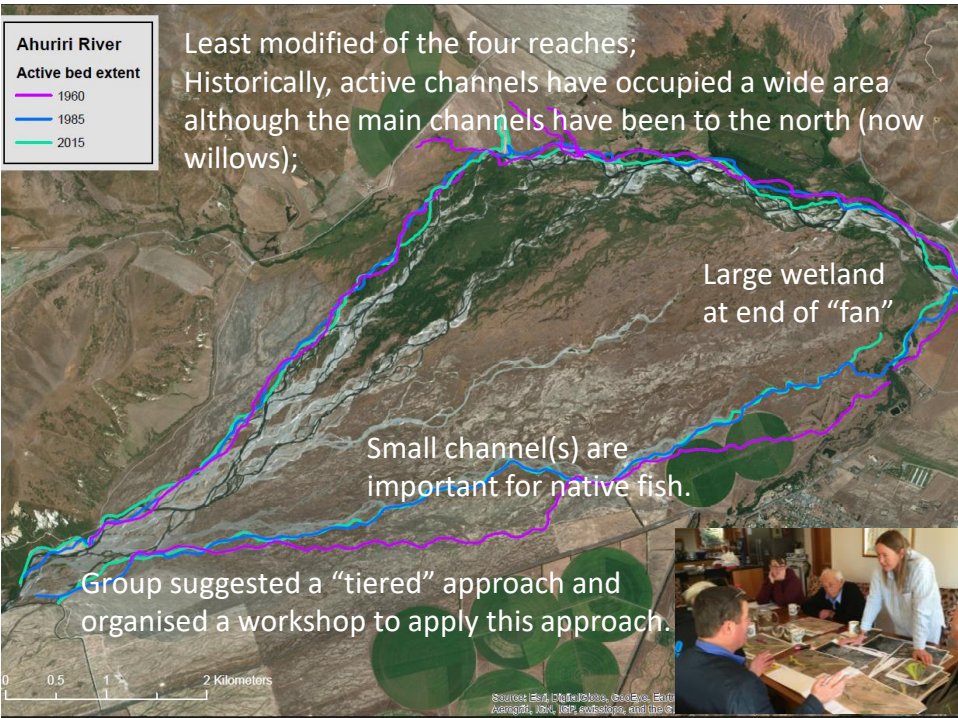
## BRIDGE PROJECT

- Work with wide range of people at four river reaches (Waiau Uwha, Ashburton/Hakatere, Waihao and Ahuriri) to develop a Canterbury-wide approach to identify:
  - the extent of the “river bed” on a braided river;
  - the values associated with the river bed and how to manage for these.
- Provide input to changes to Land and Water Regional Plan in relation to managing braided river beds.

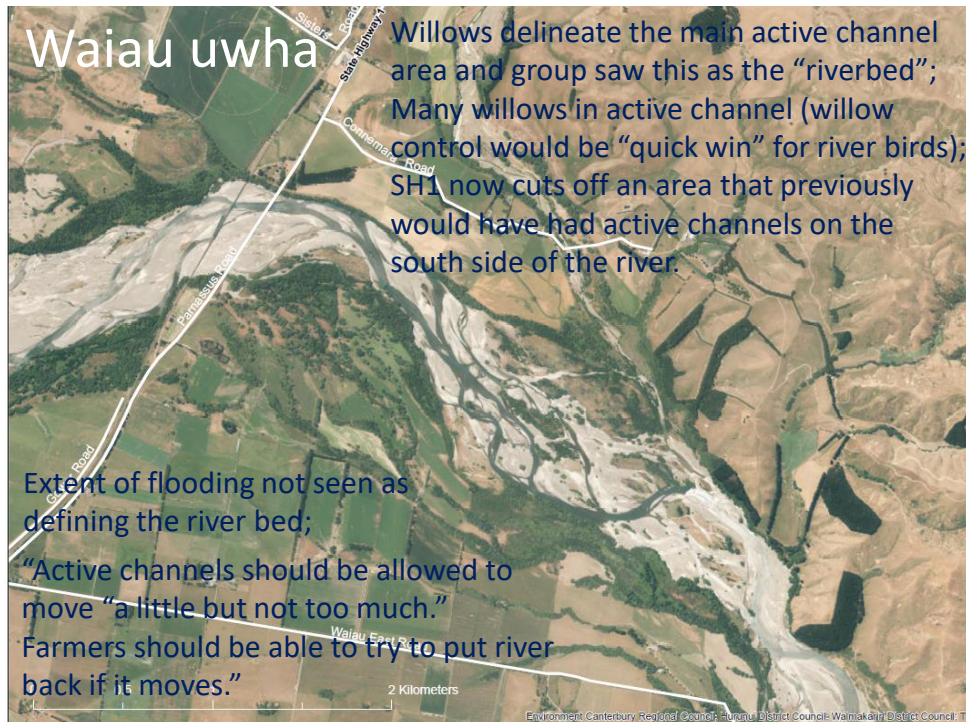


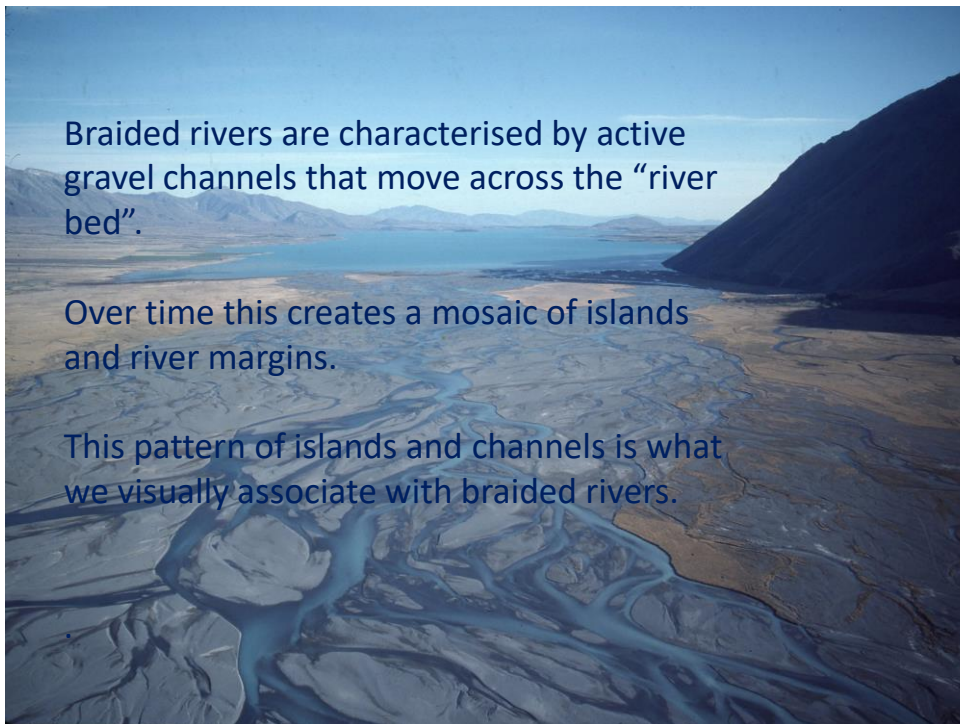








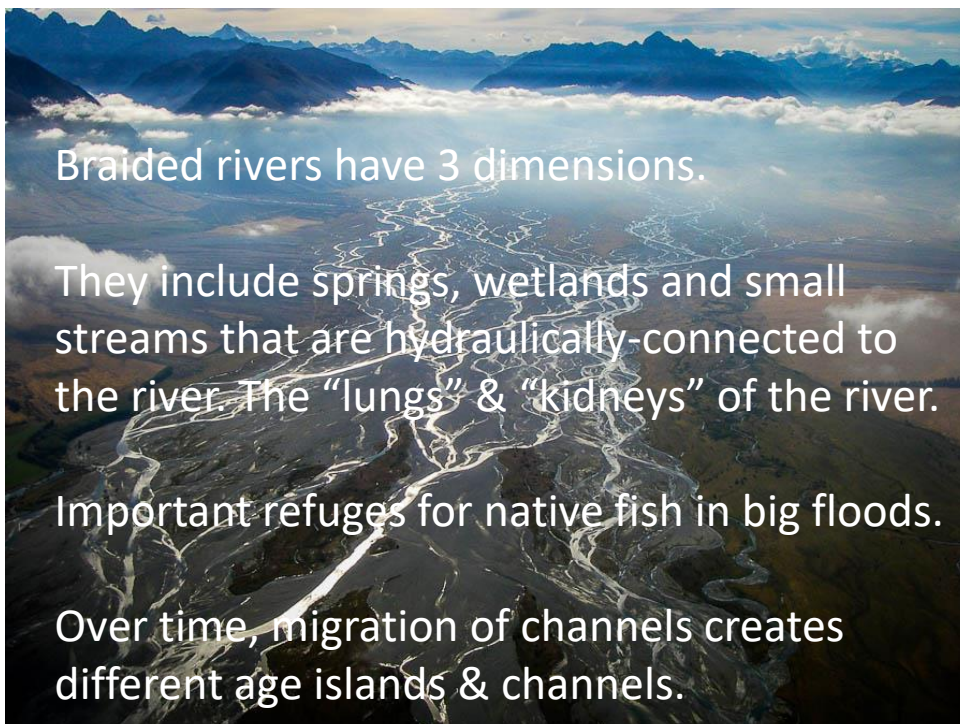




Braided rivers are characterised by active gravel channels that move across the “river bed”.

Over time this creates a mosaic of islands and river margins.

This pattern of islands and channels is what we visually associate with braided rivers.



Braided rivers have 3 dimensions.

They include springs, wetlands and small streams that are hydraulically-connected to the river. The “lungs” & “kidneys” of the river.

Important refuges for native fish in big floods.

Over time, migration of channels creates different age islands & channels.



The extent of flooding does not necessarily define the extent of the braided river.

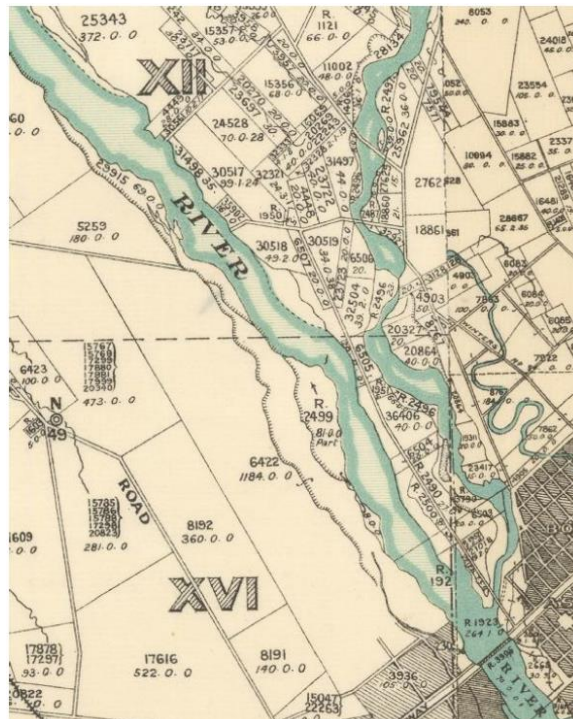
At the Waihao River reach, the extent of flooding covers a much greater area than the area that has been occupied by the active channels over the last 80 years.

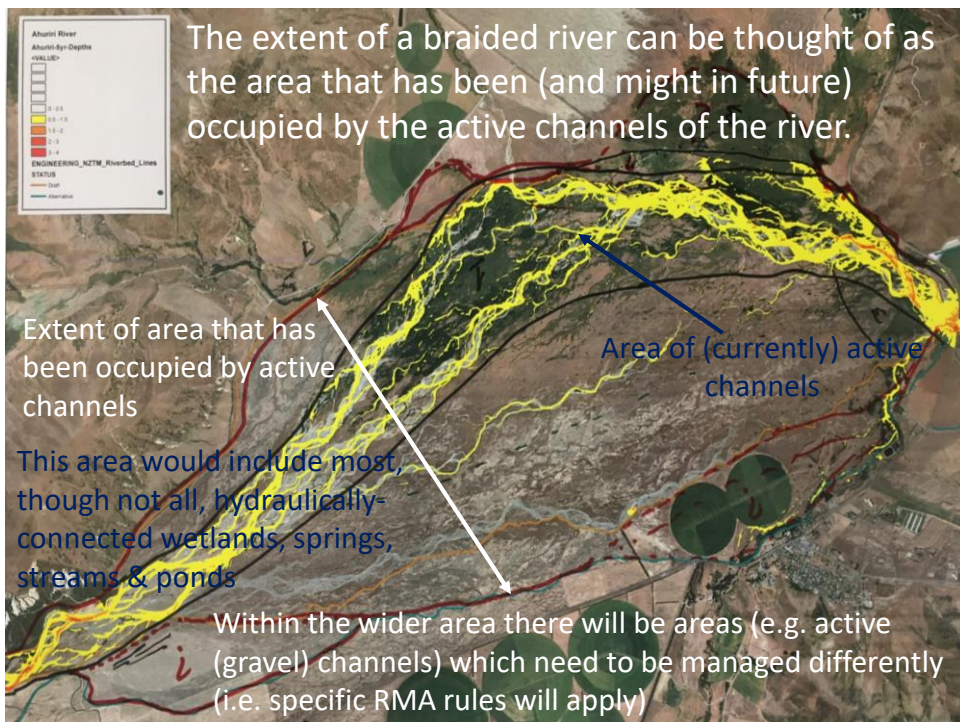


Land ownership does not define the “river bed”

Land title may reflect where the river was at some point in history.

Land ownership does not determine what RMA rules apply.

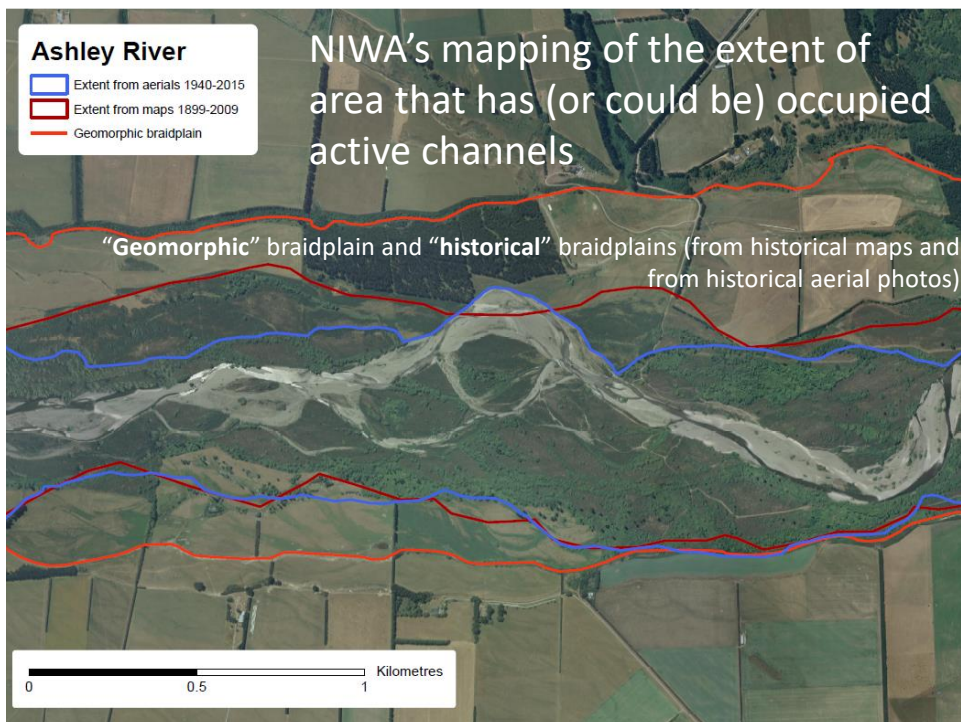


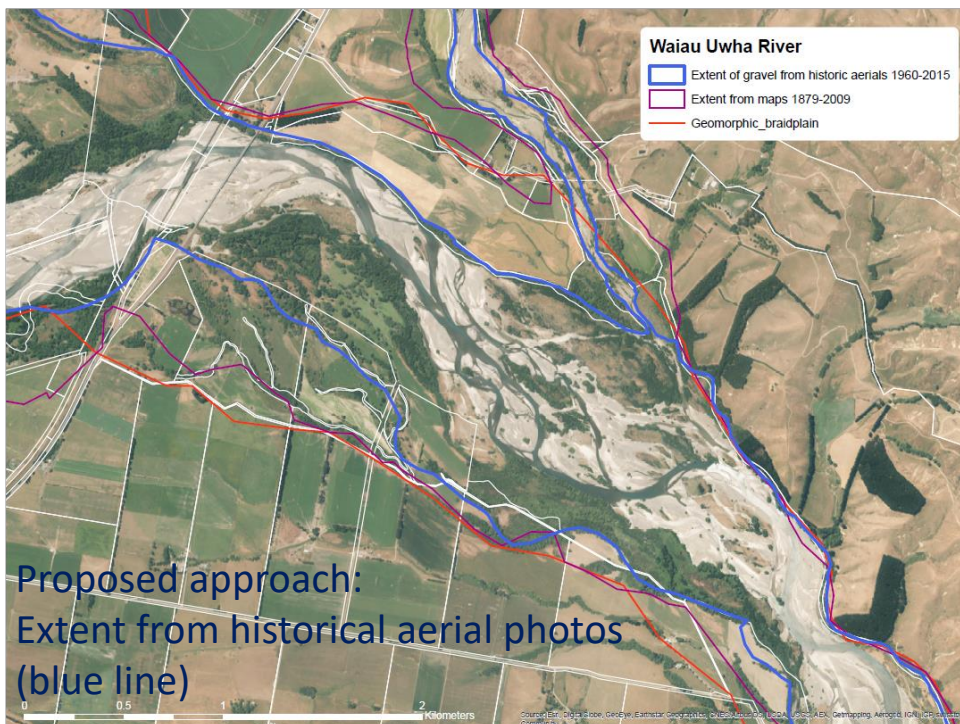




NIWA have mapped the extent of the area that has been (or might be) occupied by the active channels for Waiau and Ashley River/Rakahuri using two approaches:

1. Identifying the terraces that contain the maximum area that active channels could potentially cover (using DEMs from LIDAR imagery);
2. Identifying the area that has been covered by active channels from historical imagery and maps.

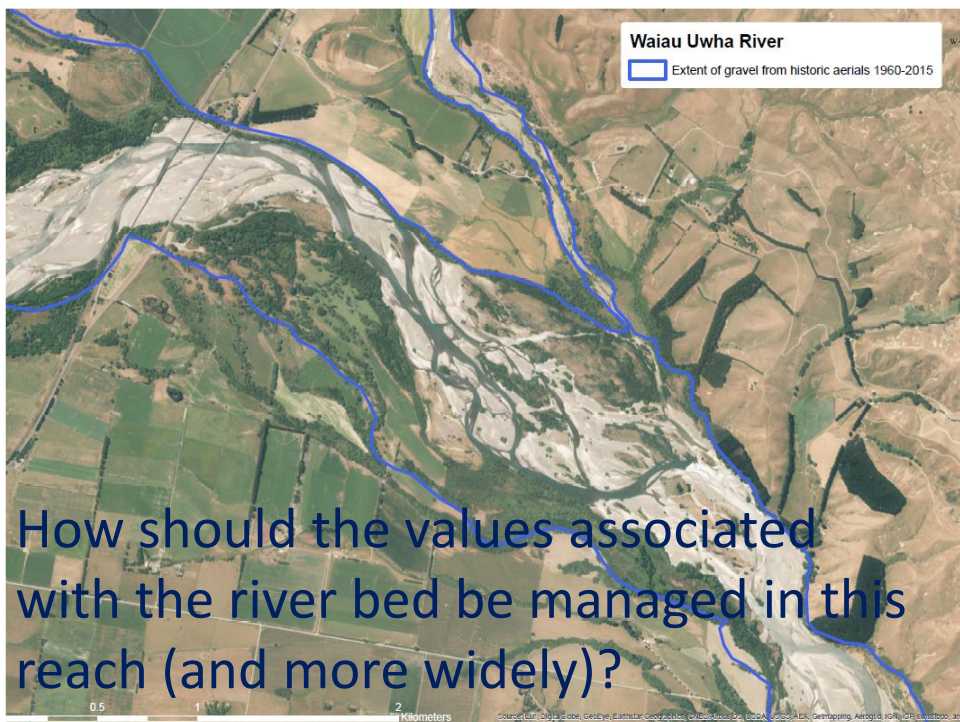






# Braided river value assessment

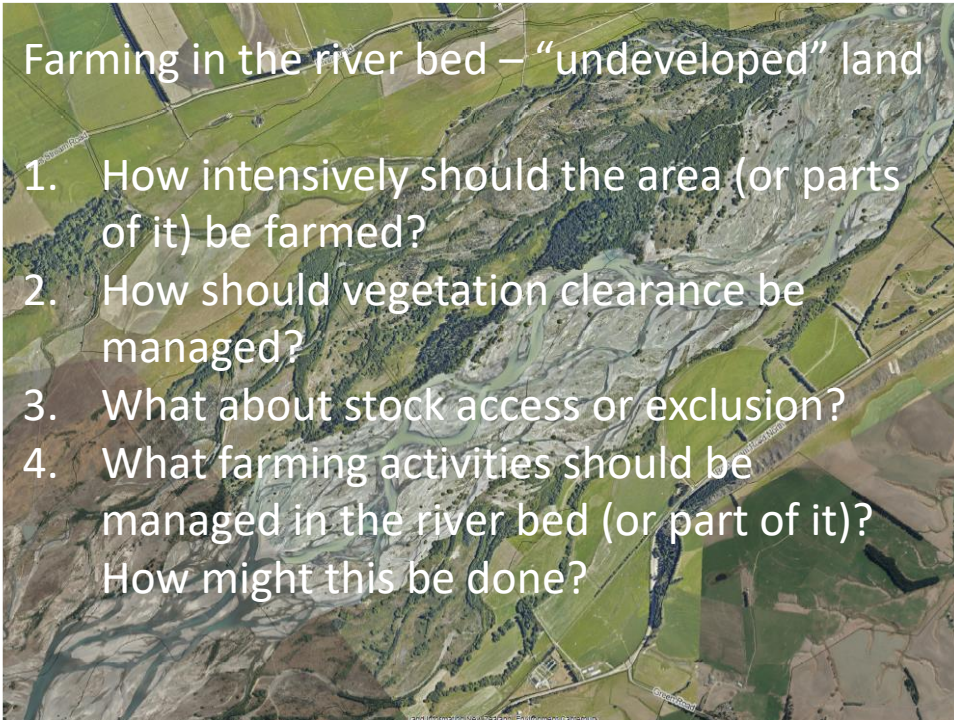
# Boffa Miskell





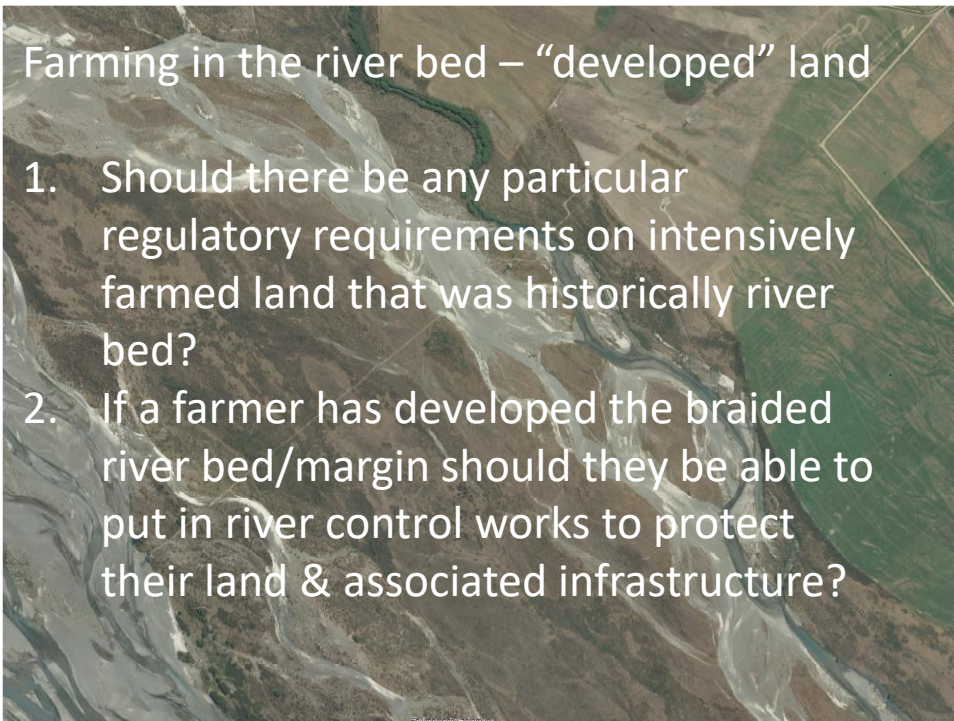
## Farming in the river bed – “undeveloped” land

1. How intensively should the area (or parts of it) be farmed?
2. How should vegetation clearance be managed?
3. What about stock access or exclusion?
4. What farming activities should be managed in the river bed (or part of it)?  
How might this be done?



## Farming in the river bed – “developed” land

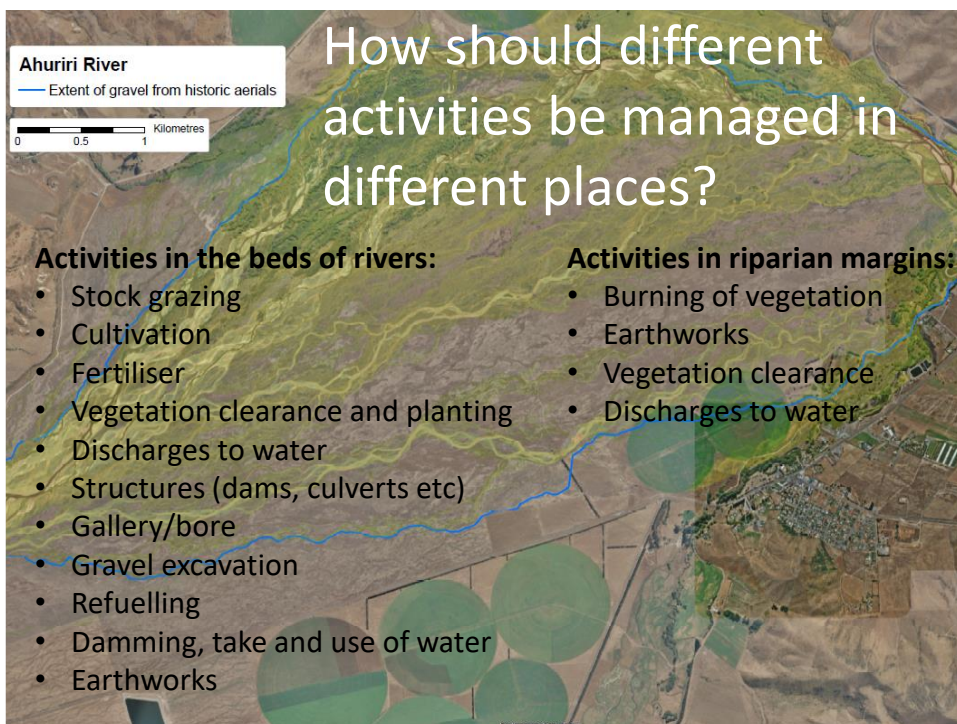
1. Should there be any particular regulatory requirements on intensively farmed land that was historically river bed?
2. If a farmer has developed the braided river bed/margin should they be able to put in river control works to protect their land & associated infrastructure?





## River protection

- If the river establishes a new active (gravel) channel should we allow the river to be put back into its old channels? Does the answer differ if there is river control in place or not (and whether there is a town at risk)?



We have a tiger  
by the tail

Next steps . . .

