

Integrated Freshwater Solutions: Workshop 2 November 25, 2010

What happened on 25 November 2010:

1. Marjan van den Belt gave a Powerpoint presentation that covered the agenda for the day, action points from Workshop 1, and key issues to be covered.
2. After morning tea the participants worked through the model and the interlinkages. Paul Horton presented model changes relating to how Maori values are best linked into the model. These had been worked on between workshops.
3. Small groups discussed proposed solutions (listed below).
4. Report back and discussion on small group outcomes (See Reports from small groups).

Summary of the discussion from Workshop 2

Questions the model should answer

These were refined to:

1. **How** can social, economic, cultural and natural science information be meaningfully integrated?
2. How big of an impact can a portfolio of solutions make toward the goals of the Accord and intermediate indicators?
3. How will environment and societal values benefit and who will lose as a result of actions taken?
4. Who does what ? (This is a fourth question important for the Action Plan)

The second question was seen to be a key one. The portfolio of solutions in the Action Plan to be delivered at the end of March needs to achieve the Accord goals.

Horizons in a process separate from the Mediated Modelling workshops have brought scientists together to find out what questions need to be answered. A 4-5 page list has been made.

Collaborative decision making

The discussion emphasised the need to understand collaborative principles at the outset and work together in good faith. These need to be revisited and built on during the mediated modelling workshops. At times participants might agree to disagree but the disagreements should not be fought out in the media. It was agreed participants could talk about the process to others as an individual but not speak on behalf of the group. The difficulty associated with extending this from individuals in the workshops to the organisations they came from was acknowledged.

Courtesy, good faith and urgency are additional good principles for collaboration and give more heart to the process. A list of names, emails and phone numbers will be circulated to workshop participants so they can contact each other if any contentious issues arise.

Media

We need a more proactive approach towards developing community support. Success requires the community to understand, be supportive and be actively involved. There will be internal differences but we need to have public statements that we all agree on.

It was decided Marjan van den Belt would be spokesperson for the Integrated Freshwater Solutions project and Richard Thompson would be as spokesperson for the Forum.

Key Issues

The action plan needs to address the key issues of concern with the river. Therefore it is important to agree on what the key issues are and what the benchmarks are from which we can measure.

Are the key issues: What is in the river?; Wet areas in the river?; Economic health?; Ecosystem health?; Food sources from river? Safe place to recreate?

Key Solutions

It was stated that it was very early in the process to be discussing solutions. As there is a big difference in the level of understanding of issues within the workshop participants generating solutions is difficult for some participants. However, the Forum committed to developing an Action Plan by March so we have to start now. A decision has been made to reduce the amount of time spent on direct interaction with the model and instead use the time to produce an action plan. If we had more time it would good to be able to do the mediated modelling at a slower pace. This would allow capacity building and more considered appraisal of the proposed actions. However, this can still be achieved by not locking in solutions. The mix and priority of solutions is important. Where are low hanging fruit? This will not be the final Action Plan – but something to feed into the 2011 March Annual Plan process. In 2012 the Long Term Plan has to be revisited so there will be a longer timeframe to work in.

The solutions sent to the IFS team by workshop participants after workshop 1, ranked roughly in order of popularity were:

- Point Source reduction / land-based options
- Riparian zones
- Enhance value of the river to people
- Reforestation of accelerated erodible land
- Public education
- Nutrients management and benchmarking river quality
- Allocation rules
- Co-management
- Technology (sustainable dairy research / ultra filtration)
- Demand management: water metering / new pipes

Explanation of the Model

A model description (20 pages) is available for participants on the www.ifs.org.nz website. This interlinks the key issues, key indicators and solutions so far. Various sections of this model were examined in the workshop and the following comments reflect evolving thinking. Some of the terminology used in the model was questioned. To get this right the 20 page model documentation will be emailed to participants and feedback is welcome. What we are trying to do is help people to assimilate information.

The need for science was seen as evident across the model so the next important step is populating the model with data. The data and science for the model is available and the IFS team is working on a process to efficiently extract it. We have not yet found the appropriate way to get the vast amount of science available into a readily assimilated format for participants. Landcare, Ag Research, Crop and Food, NIWA, Massey, and Horizons are working together and direction will help focus the science. This is not seen as a parallel process but a way to feed into the MM process. Maori units from some CRIs are involved

Aspects of model discussed in detail were: (1) erosion, (2) access (3) seasonality (4) resource consents (5) vegetation cover

- (1) Erosion is related to geology. For example, sandstone has different effects from greywacke. Target actions need to be in line with soil type. There are several different options such as tree planting in gullies to reduce accelerated erosion or on hill slopes. It is important to integrate tree planting into hill country farm management as there are links into property rights, economics, drivers, carbon sinks and sequestration. The distinction also needs to be made between when planting takes place and when the benefits result. SLUI responds to these types of issues and targets key farms.
- (2) Increased access to food sources, or special places can be detrimental from a certain point/level onwards. A positive increase in access could lead to negative impacts. Feedback loops need to pick this up. There are also economic effects associated with access such as lambing disruption and freedom campers leaving rubbish. A good management system for access and getting permission is needed. Safety can also be an issue where multiple activities take place. This needs to be allowed for in the Action Plan.
- (3) The model can be adjusted to provide a seasonal capability and be run for all year and low flow. Town water needs to be split into volume and concentration and need information on mass load, rate and timing. Information on water extraction and access through permits is also needed as eventually there will be over harvesting.
- (4) The timelines for the Action Plan need to fit in with existing resource consent timelines as this makes a difference as to when targets can be met. The process needs to find better ways to deal with resource consents. Right now Fonterra is spending \$0.5m fighting a case in the Environment Court which is money that could be better spent. Can the model be used to show impacts of large scale consents?
- (5) Agreed to add percentage of Manawatu catchment in native bush to the model.

Bayesian Belief Network (BBN) Model

The BBN model is intended to answer specific questions from the workshops. It is a different tool to look at the same questions being asked. It has a spatial component and is more data intensive than the mediated model and oriented to natural science rather than social and economic concerns. The BBN might be able to have feedbacks into the MM. BBN is more ecology specific in terms of the questions and perspectives it looks at. What questions the BBN model will look at will be determined by the Action Plan and what is identified as important.