

## **Notes on a Hurunui Science Stakeholders Group workshop –**

**Wednesday 19 April 2017. Council Chambers, Hurunui District Council, Amberley**

### **Attendees:**

- Zone Committee: John Faulkner, Cynthia Roberts, James McCone, James Costello
- Environment Canterbury: Ian Whitehouse, Kimberley Dynes
- Ravensdown: Kelly Morris, Anna Wilks
- Amuri Irrigation (AIC): Alastair Rutherford, Andrew Barton, Peter Brown
- Federated Farmers: Lionel Hume
- Hurunui Water Project (HWP): Christina Robb
- Hurunui District Landcare Group: Josh Brown
- Ngāi Tahu Farming Enterprises: Ash-Leigh Campbell
- Ngai Tahu Properties: Edwin Jansen
- Ryder Consulting: Sue Ruston
- Fish and Game: Scott Pearson
- DairyNZ: Angela Harvey
- Peer Review Group: Melissa Robson (Landcare Research)

### **Background**

These are the notes from the workshop on 19 April 2017. The agenda for the meeting was:

1. Welcome and introductions.
2. Opportunities to correct any significant errors with the notes of the last meeting.
3. Property-scale information:
  - a. Dry land farms
  - b. Amuri Irrigation Company
4. Identification of critical information gaps (further to discussion at March workshop)
5. Next meetings

### **What was discussed:**

#### ***1 Hurunui District Landcare Group (HDLG) dryland farming research proposal***

Josh Brown (Co-ordinator, HDLG) spoke to the proposal that was included in the outline of the workshop. He talked about how HDLG could provide information on the following to assist key decisions such as choosing the best option to fix the 10%-rule issue. HDLG could provide information on:

- Current state (CS) dryland farming nutrient losses verses “plausible” dryland farming nutrient losses.
- Ground truthing of ECan nutrient loss and landuse GIS layers.
- Dryland farming Overseer modelled nutrient losses compared to Good Management Practice (GMP) portal losses.
- Economic analysis of dryland farming’s current and potential contributions to the wider Hurunui/Waiiau community.
- What is currently being done at GMP standard on dryland farms and to what extent?

A question was asked on what the information to be collected by the HDLG would do to help fix the 10%-rule issue. In particular, how would it measure change and improvement in dry land farming and how would it provide confidence that dry land farmers are managing their nutrient losses (and therefore dry land farming should be a permitted activity). It was suggested that in addition to what was being proposed by the HDLG “champion” farms be identified and described. These would be the farms that have good FEPs and that tick all the boxes with respect to GMPs.

Comment was made that dry land farmers “intensified” in response to market changes and so it was hard to estimate what intensification would occur in future. Not all farmers intensify and it would be good to have an estimate of the proportion of farmers that respond to market changes. It was believed that the AgCensus data may provide some estimate of this (for example in the proportion of dry land farms that increased stocking rates in response to a market change).

There was discussion of the proposed approach of comparing current nutrient losses with those under “plausible” intensification. It was suggested that nutrient losses also be estimated for “theoretically possible” intensification (i.e. beyond just “plausible”) to provide a “range-finder” that could be used to assess the “worst case” scenario from dry land intensification. It was noted that this information may already be available from work by Rebecca Hyde and James Hoban.

There was support from all participants for the proposal from the HDLG noting the addition of information on “champion” farms as above.

## **2 Presentations from Amuri Irrigation Company**

Alastair Rutherford provided three inter-related presentations – attached as separate PDF – outlining AIC’s approach to audited self management and results of two FEP audit rounds.

AIC was asked if information was available on changes over time in N loss on farms. This information should be available for dairy farms (from Fonterra) though Overseer files would have to be re-run to remove the impact of Overseer version changes.

AIC described how it had estimated its consented Nitrogen discharge allowance (N load limit) using the Look-up Table (LUT) that had been developed as part of the limit setting process for Selwyn Te Waihora. A question was asked about how AIC was tracking whether they were meeting their consented nitrogen discharge allowance (given that the allowance was based on the LUT). AIC indicated it was tracking changes in its N discharge by tracking changes in irrigation type, land use and stocking rates.

## **3 Identification of additional critical information gaps**

Participants were asked to identify further critical information gaps in addition to those identified at the previous workshop and by DairyNZ in relation to micro-nutrients and *Phormidium* (and described in the outline for the April workshop).

The following information gaps had been identified (or inferred) in earlier discussion on property-scale information:

1. Information on what P losses are manageable versus what is non-manageable including where in the zone (e.g. tributaries) or what land uses provide the greatest opportunity for managing P losses, and whether managing to GMPs will reduce P losses (and loads) and by how much.
2. Economic information should include estimates of the cost to the environment from current land management.

Following the workshop, Kelly Morris, Ravensdown, provided a list of information gaps. These are provided below.

#### **4 Next meetings**

<b>Date</b>	<b>Venue</b>	<b>Focus of workshop</b>
Wednesday 31 May, 3-6pm	St Johns Hall, Amberley	<ul style="list-style-type: none"> <li>• Briefing on current social and economic situation</li> <li>• Proposed approach to estimating (groundwater – surface water) lags in the Amuri Basin</li> </ul>
Wednesday 21 June, 3-6pm	St Johns Hall, Amberley	<ul style="list-style-type: none"> <li>• Identify the critical information needed to develop solutions for the priority land and water management issues.</li> </ul>

#### **5 Additional information gaps from Kelly Morris, Ravensdown**

1. The effect ECans implementation of the existing 10% rule has had on land use change/intensification/property sale since the HWRRP became operative in
  - a. The Hurunui catchment
  - b. The Waiau catchment
2. The effect ECans implementation of the existing 10% rule has had on water quality since the HWRRP became operative in
  - a. The Hurunui catchment
  - b. The Waiau catchment
3. The result getting all farms to GMP (on farm practices) would have on
  - a. Hurunui catchment
    - i. N losses
    - ii. P losses
  - b. Waiau catchment
    - i. N losses
    - ii. P losses
4. The effect on farm systems and businesses (value) if operating to a GMP number for N loss (via the portal), given the current variability of portal N loss numbers
5. For the Waipara Red Zone, the effect that the LWRP and proposed variation 5 rules have on non dairy farms that were granted consent to irrigate in the baseline period (2009-13) and began irrigation just after the baseline period.