

FLAG Subgroup Workshop NOTES: 17 April 2015

Purpose:	Takaka FLAG Subgroup Workshop (Meeting 8b)
Date:	17 April 2015
Time:	9.30am-3.00pm
Venue:	Takaka Fire Station
Present:	<p>FLAG members: Graham Ball (GB) Greg Anderson (GA) Mirka Langford (MLa) Neil Murray (NM) Mike Newman (MN) Tony Reilly (TR) Mik Symmons (MS) Mike Newman (MN) Piers MacLaren (PM) Martine Bouillir (MB- council representative on FLAG)</p> <p>Staff: Glenn Stevens (GS - Resource Scientist - Water & Land) Joseph Thomas (JT -Resource Scientist - Water & Special Projects) Andrew Fenemor (AF -Landcare Research)</p>
Apologies:	Matt Rountree (MR) Margie Little (MLi- iwi representative on FLAG) Kirsty Joynt (KJ) Lisa McGlinchey (LM -Environmental Policy Planner)
Notes taken by:	Andrew Fenemor (supplemented by Glenn Stevens)
Definitions and Abbreviations	FLAG = Freshwater and Land Advisory Group NPS-FM 2014 = National Policy Statement for Freshwater Management 2014 NOF= National Objectives Framework TRMP = Tasman Resource Management Plan (the Plan) TWMC = Takaka Water Management Catchments SOE = State of the Environment WCO = Water Conservation Order application for Te Waikoropupu Springs and recharge area Unconfined aquifer = are those where permeable strata are open to the ground surface. Surface water (rainfall and/or river flow) is able to seep from the ground surface directly to the aquifer. Confined aquifer = are those where permeable groundwater bearing strata are separated from the land's surface by an impermeable layer (such as silt or clay) that prevents surface water from directly seeping into the aquifer. Groundwater migrates to confined aquifers from an unconfined recharge area located elsewhere.
<i>Note: records of discussion points have been grouped into similar topics and are not necessarily in the order discussed at the meeting.</i>	
FLAG MEMBERS PLEASE NOTE: If you have any questions or need anything between meetings, then please contact Mary-Anne Baker by email: marya@tasman.govt.nz or by phone ddi 03 543 8486.	

Purpose of Meeting

- Presentation by Mirka Langford on nitrate management on dairy farms
- Subgroup meeting to discuss attributes for the WaterWheel

Session 1 – Nitrogen on Dairy Farms

Presentation by Mirka Langford on Nitrates and use of OVERSEER model

Mirka overviewed nitrogen (N) budgets and the N cycle on dairy farms and the management of N on dairy farms using the model OVERSEER.

Key points:

- 30-35% N lost to leaching is about average for dairying
- Urea before rain reduces volatilisation loss (AF: but does it increase leached losses?)
- OVERSEER:
 - Uses averaged nutrient losses, annual (8 nutrients)
 - Assumes best practice on farms
 - Consistency of assumptions necessary for users to get the same answers
 - Can it be used for regulatory purposes? – has drawbacks
- Average Golden Bay farm:
 - 180-240 N added per year
 - Produces 14-124 g/m³ N losses calculated in OVERSEER
- Protocol for Fonterra doesn't allow other grass species – species selected even if on farm grass is not ryegrass/clover. The purpose of this is to compare farms across NZ in Fonterra modelling using OVERSEER.
- Clover fixation of N seems lower (93 in this example) than Lincoln College estimates of 200 before intensive dairy came along. Adding N to farm systems seems to have depressed clover production of N
- Mitigating N loss – 5 primary areas:
 - Drainage – rainfall and irrigation
 - Animals – urine patches related to stock numbers
 - Effluent – spread thinly, not when soils are water logged (effluent storage needed)
 - Fertiliser – 35-50 N per application best
 - Feed – winter crops a particular leaching risk
- Refer diagram in presentation of relative effect of each mitigation area from Dairy NZ

Session 2 – Attributes Discussion

Discussion lead by Andrew Fenemor on selection of key attributes for use in WaterWheel modelling work

- All FLAG members present stayed for this discussion.
- FLAG agreed to aim for 15 attributes to be selected.

Discussion held by group on which of the master list of attributes could be omitted - for example if other attributes protect that value anyway. Discussion points:

- Suggest deleting all socio-cultural attributes
 - Discussion about benefits for Maori engagement of retaining mauri (cultural health index/assessments)
 - What is the cultural health index – can staff provide an explanation and example at the next FLAG meeting?
- Delete 'Number of FTE employed', 'KW generated', 'Number of structures' attributes
 - Discussed whether 'KW generated' might be affected by potential limits affecting hydro-electric water use – FLAG thought that unlikely

- Delete 'Stream Habitat Score', 'Riparian Vegetation' attributes as those are more for the land part of the plan (?)
- Could combine 'Number of days Takaka River is dry' with 'Environmental Flow Regime' as these are related
- Nitrates could be supplemented with N:P ration as one outcome of high N could be algal growths
- Suggest combining the two freshwater fish attributes
- Some value sets (columns) may not need an attribute as its covered under another value set – eg. Natural form and Character and Hydroelectric (?)
- AF: it would be more balanced if each Value Set had an attribute in the chose 12-15 attributes. FLAG members could move an attribute to a different column if necessary

Not all FLAG members agreed with the suggestions above.

Action: AF to compile and refine the suggestions and bring them back for agreement by the FLAG.

Action: FLAG members should email any further suggestions to AF for informing the compilation process.

Action: Staff to provide a summary of Cultural Health Indicators/Assessments at a future FLAG meeting.

AF: The process also needs to identify 'pinch points' or 'points of obligation' where limits may need to apply. They could be an individual attribute at a specified point or a composite attribute at a mix of places or times (eg an indicator of bathing water quality compliance across the whole water management zone)

Meeting closed at 12.15pm

Next meeting 24th April 2015 – topic nutrient management