StAG subcommittee meeting 5 November 2013, 10am-12pm

Present: Anna Grayling, Warren Webber, Stuart Morrison, Gwyn Morgan, Simon Park, Wendy Roe (from 11am), Sarah Omundsen (by video link), Tanira Kingi and Ollie Parsons (latter two via teleconference). **Apologies:** Liam Dagg, Hera Smith.

Action List

1. Model Overseer soils/rainfall impact with a hypothetical drystock farm (Alastair)
2. Use Rule 11 data to generate NDA ranges, present to StAG (Simon to initiate)
3. Drystock analysis teleconference to scope potential project (Simon, see addendum*)
4. Lake Rotorua Rules & Incentives Engagement Plan updating to be raised at StAG (Anna)
5. Next Subcommittee: 4-5pm Monday 18 November (post-StAG), RDC

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1. **StAG Subcommittee notes 22 October 2013** – approved, some actions carried forward

2. **General business items**

   Stuart: Confusion on "**effective area**" for NDAs, not total farm area assumed by many

   - Acknowledged – all future comms must be clear; raise as StAG agenda item

   Gwyn: Need **drystock analysis** covering current and mitigated/NDA status - see #5 below

3. **Overseer N loss rates for contrasting Rotorua soils and rainfall (Alastair McCormick)**

   Alastair outlined the impact of soil type (grouped into podzol, pumice, recent and allophonic) and rainfall in 100mm bands (1400 to 2300mm), and compared Overseer 5 versus Overseer 6, based on a hypothetical 100ha future dairy farm. Key points:

   - Overseer soil input protocols followed, as annotated to soil fact sheets in Landcare Research's "S-map" http://www.boprc.govt.nz/environment/land/soil-information/
   - For the same farm system and rainfall, N loss using Overseer 5 increased from podzol (lowest) to recent soils (e.g. Rotomahana) to pumice (highest N loss). These differences were not apparent in Overseer 6 (see post-meeting addendum*)
   - Overseer 6 gave higher N loss e.g. 35 to 41 kgN/ha/yr for Oturoa pumice dairy farm
   - As expected, higher rainfall increased N loss (both Overseer 5 & 6) – for each additional 100mm annual rainfall, N loss increased about 1kgN/ha/yr
   - Caution: future Overseer versions may give different trends i.e. what may seem equitable today may not be the case with Overseer and/or S-map revisions
   - With caveats, it is possible to use soil/rainfall to adjust NDAs across a range of values
   - Giving high NDA to land with high rainfall (& leakier soil) is contrary to "natural capital" principle where more intensive farming is possible on lower rainfall/less leaky soils
   - A single figure NDA (e.g. 35) partly recognizes natural capital i.e. the NDA is easier to meet where soil and rainfall factors reduce N loss

- Due to high drystock farm diversity and the difficulty in meeting 13, an NDA range appears more critical for the drystock sector
- Can rule structure enable research to populate NDA look-up tables later, as proposed in Canterbury? This would improve industry buy-in.
- **Action:** Alastair to model Overseer soils/rainfall with a hypothetical drystock farm

4. **Possible use of Rule 11 data to determine NDA range (Simon)**

   Given the existing Rule 11 database of N loss values, Simon suggested that dairy (30-40) and drystock (9-17) NDA ranges could be derived by applying a R11 weighting. Note:

   - This "squeezes" the wide Rule 11 ranges to narrower NDA ranges
   - Rule 11 N loss values partly reflect soil and rainfall as well as farm system/intensity
   - Using Rule 11 data has problems: only >40ha benchmarked; wide variation in quality of Overseer input data; ignores pre-2001 mitigation
   - **Action:** Use Rule 11 data to generate NDA ranges, present to StAG (Simon initiates)

5. **Drystock farm data and analysis**

   Consensus that, relative to dairy, we know much less about drystock status quo (farm systems, N loss and profit), mitigation options and possible 13 NDA impact.

   Farm plan implementation is being developed collaboratively between Beef & Lamb NZ, DairyNZ and BOPRC – consider linkages to detailed Overseer/Farmax analysis. Such work will also support BOPRC's section 32 analysis in 2014.

   - **Action**: set up urgent teleconference to scope project, addressing: review Rule 11 data to characterize drystock farm systems, areas, N loss rates; more detailed farm analysis using Overseer/Farmax. Invite B&LNZ, Feds, farmers and BOPRC**
   - Such work will inform ongoing policy development but not slow it down i.e. still need draft rules by March 2014 which are part of a much longer rule development process.

6. **Incentives update, 13 November expert workshop (Anna Grayling)**

   - To provide advice on: incentives scheme structure and governance; critical dependencies with rules; focus on "below NDA" reductions while maintaining wide access to funds incentive
   - **Gorse project** refined, estimate $2.5m cost to ratepayers (separate from main $45.5m fund), seek RTALSG approval 15 November, subsequent BOPRC approval and start!

Meeting addenda

*Drystock analysis teleconference held 7 November with B&LNZ, Feds, farmers and BOPRC. It was resolved to filter the Rule 11 database to characterise drystock farms for N loss, area (>40ha) and broad farm system – such initial analysis will inform a subsequent Overseer/Farmax analysis. All parties to discuss again 25 November.

**Alastair MacCormick notes that the OVERSEER 6 analysis produced unusual unexpected results i.e. a lack of soil type impact on N loss. Advice is being sought from AgResearch.