



Conference “On-farm impacts of environmental policy”

Field trip: Irrigation, productivity and environmental stewardship

Wednesday 28 August

The purpose of this field visit is to help delegates connect the research and policy context of the NZARES Conference to the challenges and opportunities that these pose on-farm. The format will be interactive, with lead speakers initiating discussions on a range of topics as we tour the farm and surrounding area.

- 12.00 pm** **Bus pickup from Christchurch Airport**
1.00 pm **Bus pickup from Lincoln University (from APEN Conference venue)**
- 1.30 pm** **Arrive at dairy support farm, Burnham**

John & Leo Donker’s dairy support farm near Burnham

The 384ha farm currently operates centre pivot irrigation from groundwater. This is a typical situation in Canterbury and is also applicable to other irrigated parts of NZ. The specific location is within the Selwyn-Waihora Zone of the Canterbury Water Management Strategy, where a collaborative process is nearing the stage of releasing a draft plan setting nutrient and water allocation limits. At the same time and also within the CWMS framework, Central Plains Water Ltd are seeking investor support for the development of stage 1 of an irrigation scheme that will eventually irrigate 60,000ha, while also reducing the groundwater abstraction pressure. These approaches are amongst those that have informed the recent Land and Water Forum process, and in the government’s recent *Freshwater Reforms: 2013 and beyond* document.

1. Introductions to group and to farm – Murray Doak, John and Leo Donkers
 - Farm history – conversion from forestry to sheep to dairy support
 - Current operation and future plans
2. The Canterbury Water Management Strategy and collaborative nutrient limit setting
Ian Brown, Environment Canterbury & Pat McEvedy, Chair Selwyn Waihora Zone Committee
 - The CWMS vision and targets – TeWaihora, lowland streams, development
 - The case for limits, costs and benefits of alternative approaches
 - Collaboration – the good, bad and ugly
 - Making the tradeoffs in setting limits in collaborative processes

2.30 pm **Depart farm, travel to Te Pirita** (Earthquake impacts – Murray Doak)

(enroute) The economics of developing an irrigation scheme – using CPW example

Andrew Curtis, CEO Irrigation NZ & Derek Crombie, Project Manager Central Plains Water Scheme

- Role of infrastructure in water management
- History of CPW
- The business case for CPW – capital, operating, water sources etc
- Cost equation for current groundwater irrigators
- Process – progress and costs so far
- Co-benefits of irrigation schemes – valuing them, paying for them

3.30pm Arrive Willesden, Prairie and Cheswick Farms

These three farms total around 1000ha and along with the Burnham farm, belong to the Camden group of farm companies in which John and Leo have interests. They are on the upper Te Pirita plains, part of the 20,000ha command area for Central Plains Water stage 1. Two are fully operational dairy farms currently using groundwater, and the other will be fully developed when Central Plains Stage 1 is built. As for the Burnham farm, the properties are in the Selwyn-Waihora water management zone.

3. Future impacts on their farms of managing to nutrient limits

John & Leo Donkers, Farm Owners

- Farm operations now – stocking, irrigation, fertiliser, production, wintering
- Mitigation possibilities – wintering, stocking, irrigation, management and advanced management systems
- Tools available to assist – nutrient budgeting, technology
- Allocations of nutrients – farm level or collective?
- Uncertainties – how to deal with them?
- What will farming within limits mean?

4. Economics and policy settings in reducing water over-allocation

Simon Harris, Economist & John Donkers (Irrigation NZ Chair)

- Framework of approach used in past – Rakaia Selwyn review to volumetric
- Transfer of groundwater to scheme water – with Derek
- Stockwater system incorporation into CPW
- Potential efficiency gains for overall water use

4.30pm Leave farm, travel via Sharlands – SH1 – Selwyn Lake Rd to Lincoln

5. The future needs from the regulatory and industry extension systems

James Ryan, Dairy NZ

- Water user agreements
- ASM, Farm Environment Plans
- Collective action on extension – are there any early adopters?

5.00pm Arrive Lincoln – Famous Grouse for social time and meal

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