SUMMARY OF EVIDENCE OF DIANA JOAN MATHERS ON BEHALF OF THE SOUTH CANTERBURY PROVINCE OF FEDERATED FARMERS OF NEW ZEALAND

Summary of Main Points

- Arable systems are often complex and dynamic and this presents a challenge for farm system modelling. As complexity increases the modelling becomes less representative of the actual system and the reporting has a degree of uncertainty. As a long-term average, farm systems model, Overseer V6 has a number of limitations for modelling complex arable systems. These limitations include:
  - ☒ insufficient options for developing the block history,
  - ☒ an incomplete list of crop options, especially for seed crops,
  - ☒ errors associated with stock grazing on cropping blocks.

  There will be a degree of uncertainty for an arable Overseer budget, over and above the known levels of uncertainty associated with the model.
- The preparation of Overseer nutrient budgets for mixed arable enterprises often involves compromises in the data entry to deliver a nutrient budget for the farm. Farmers are less likely to have confidence in their nutrient budget numbers if there have been adjustments to their farm data during the data entry process. A poor level of confidence in Overseer nutrient loss figures works against their commitment to being able to deliver good environmental management.
- A Flexibility Cap is a good option for farms with low nutrient losses. Having room to move enables farmers to accept enterprise opportunities with the confidence that they are able to meet their environmental targets.
- Some soils in the South Coastal Canterbury Streams zone are more free-draining and have higher nutrient losses. A higher maximum cap for the nutrient loss limit should be set for these soils in order to maintain their productive capacity and economic contribution to the region.
- As the Overseer model is updated, new versions will be released and used to determine farm nutrient budgets. Nutrient loss limits set in the Regional Plan should be updated to align with the Overseer version changes. A pragmatic approach would be to have an agreed farm system which could be modelled repeatedly as the versions of Overseer were developed.