



## OVERSEER® Nutrient Budgets

### *Supporting Smart Farming*

## Summary of Strategic Plan 2009-2019

### What is OVERSEER®?

OVERSEER® Nutrient Budgets (*Overseer*) allows farmers, growers<sup>1</sup> and their advisers to examine nutrient use and flows within a farm to optimise efficiency of use and reduce environmental impacts (soil, water and atmosphere). It also provides a means to investigate the effect of mitigation options to reduce the environmental impact of management practices including nutrient use.<sup>2</sup>

*Overseer* is owned jointly by AgResearch, the New Zealand Fertiliser Manufacturers' Research Association and the Ministry of Agriculture and Forestry.

### Purpose

The Strategic Plan defines the high-level direction for *Overseer*, helping Owners make decisions on allocating their resources to pursue this strategy, including its capital and people. Specific project level detail is specified in the Business Plan, of which the work programme is a major part.

### Vision

The Owners want *Overseer* to be:

- § A robust, science-based decision support tool and policy support tool that is widely used for improving farm profitability, optimising nutrient use and minimising impacts on air, soil and water quality.

### Mission

The Owners strive to:

- § Develop and encourage the use of the *Overseer* nutrient budget model towards the stated Vision
- § Reflect a partnership between farmers, growers, the fertiliser industry, scientists and government<sup>3</sup>
- § Follow open and consultative processes with stakeholders
- § Adopt good science
- § Be consistent with domestic and international laws, agreements and standards.

---

<sup>1</sup> "Farmers" includes farm foresters, and "growers" includes operators of horticultural blocks.

<sup>2</sup> More information is available at: <http://www.agresearch.co.nz/overseerweb/>

<sup>3</sup> Including local government.

## Scope

The “Scope” defines the niche *Overseer* will operate within, guiding the development of the model and influencing stakeholder expectations.

Customers:

- § Those who advise farmers and growers<sup>4</sup>
- § Farmers and growers
- § Policy-makers in government and industry.

Services:

- § A data capture and reporting tool for key resources that correctly represents the farm and horticultural block.
- § Delivers<sup>5</sup> tools that enhance the management of farm and horticultural block resources.
- § Contributes<sup>5</sup> to farm and horticulture management software.

Interfaces

- § *Overseer* could incorporate spatial databases, provide for GPS inputs and link to environmental quality and farm management models
- § Inputs into *Overseer* will be optimised considering cost, improved technical accuracy and increased complexity.

Delivery:

- § *Overseer* will continue to be provided free for use by New Zealanders
- § *Overseer* will be operated through the most cost-effective means, including personal computers, the Internet, and/or appropriate new technologies

## Critical success factors

*Overseer* will:

- § Meet the nutrient management needs of farmers, growers, their advisers and policy-makers
- § Be scientifically robust:
- § Be intuitive to use
- § Be understood and trusted by farmers, growers, their advisers and policy-makers
- § Be developed through open and transparent processes
- § Be supported by sufficient funds and personnel.

## Strategic direction

The future development of *Overseer* will:

1. Improve governance and developmental processes
  - Provide for user input into *Overseer* development.
  - Understand user and client needs
  - Improve validation and testing of the model prior to release.

---

<sup>4</sup> Includes fertiliser representatives.

<sup>5</sup> “Delivers” means that this is provided within *Overseer*, whereas “contributes to” means that *Overseer* is linked to appropriate software.

2. Improve understanding of *Overseer*
  - Increase understanding of the merits and limitations of the model
  - Ensure users are able to use the model effectively.
3. Increase the accessibility / usability of the model
  - Improve the user interface to be appropriate for the intended users
  - Investigate the role of a simpler version of *Overseer*
  - Clarify and improve the consistency of data entry.
4. Maintain the model
  - General maintenance
  - Testing and validation
  - Provide support documentation
5. Improve the model
  - Improve architecture
  - Review and update submodels
  - Enable the integration of *Overseer* with appropriate models and systems
6. Add new features
  - New submodels
  - New production systems

### **Priorities**

The Path is ambitious and cannot be delivered in the short-term with existing funding. The Owners have identified the following priorities for research, development and implementation. These priorities are based on the principles of:

Customer:

- § Improve understanding and use of *Overseer* before adding new features

Software:

- § Develop a modern and robust architecture and testing regime before developing linkages with other models and systems

Science:

- § Consolidate the model and reduce current weaknesses before expanding its scope.