Tax Working Group Public Submissions Information Release

Release Document

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[1]   9(2)(a) - to protect the privacy of natural persons, including deceased people;

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In preparing this Information Release, the Treasury has considered the public interest considerations in section 9(1) of the Official Information Act.

Overseer Limited

SUBMISSION ON TAX WORKING GROUP INTERIM REPORT

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Overseer Limited noted references to the Overseer model in the Tax Working Group Future of Tax Interim Report. Specifically, the Report listed Overseer as an example of modelling tools that attempt to account for farm-specific nitrogen loss and the Tax Working Group's support for further work on its development and improvement in relation to its accuracy.

In principle, Overseer Limited welcomes the Tax Working Group's support for continuous improvement of Overseer. However, it is critical that characteristics of modelled results are clearly understood.

This submission provides further information about Overseer to clarify what Overseer is and how it is continuously updated.

- Overseer is an on-farm, strategic decision support tool for farmers. It is designed to help develop nutrient budgets, examine nutrient efficiency, identify potential environmental risks, and evaluate the effects of mitigation practices – hence incentivising the right behaviour. It is designed to run off data that is readily available to a farmer and uses defaults where available, for a wide range of farm management systems across New Zealand.
- The fundamental concept that needs to be understood is that, as a modelling tool, Overseer does not measure actual nitrogen loss or calculate it for a particular point in time.
- The accuracy of a measurement system is the degree of closeness of measurements of a quantity to that quantity's actual (true) or accepted (where actual measurement is difficult) value.
- Therefore, in relation to models, the concept of accuracy has limited application to the estimation of whole farm nutrient loss where it is not practicable to measure directly.
- As it is not realistic nor cost effective to measure every aspects of complex and diverse farming systems across New Zealand, it is also not possible to get a true measure of whole farm nutrient losses given the diffuse nature of leaching. Overseer uses a series of algorithms to model or simulate the fate of nutrients (including Nitrogen) through a range of biophysical processes operating on a farm.
- The underlying algorithms that make up the multiple sub-models within Overseer are based on research and science principles. The nitrogen model is calibrated against New Zealand field trial results for pasture systems. Ongoing validation and re-calibration of the sub-models within Overseer occurs to maintain the model's integrity as new components are included or updates are made to the existing modelling to reflect improved scientific understanding. This is how Overseer is updated to reflect the available science and data to ensure continuous improvement.

Overseer Limited is happy to provide further detail if it assists.