

Regulatory Implications of the Overseer Report – Are Input Controls the Way of the Future?

The use of the Overseer as a tool to estimate nitrogen losses in regulatory frameworks in New Zealand has recently come under the spotlight through a range of reviews. Questions were initially raised by the Parliamentary Commissioner for the Environment (PCE) review of Overseer in December 2018. The subsequent Scientific Advisory Panel report on Overseer in June 2021 (the Overseer report) raised further questions, leading to a specific response by the Government to the Overseer peer review report released in August 2021.

This article provides an overview of the findings of the Overseer report and the Government's response. It examines the regulatory implications of the recent reports, both under existing regulatory frameworks, but also looking forward as regional councils move towards giving full effect to the National Policy Statement for Freshwater Management 2020 (NPS-FM).

SO, WHAT IS OVERSEER?

Overseer is a model that allows farmers to estimate nutrient loss on their farms (particularly nitrogen). It was originally developed as a tool for farmers wanting to make on-farm decisions that enabled the more efficient use of nutrients (particularly fertilisers).

However, with the increasing emphasis under the various iterations of the NPS-FM on limit setting, and managing to limits, reliance on Overseer within regulatory contexts has significantly increased over the last decade or so. Several regional councils now use it to varying degrees

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in their regional planning frameworks and as a tool for assessing nitrogen losses from farming activities in resource consenting contexts. A key attraction of a model like Overseer has been the flexibility it gives to farmers, and regulators, compared to other methods of managing the diffuse loss of nitrogen from farmland, such as input controls on stocking rates and fertiliser use.

THE OVERSEER REPORT

In 2018, the PCE undertook a review of Overseer (Parliamentary Commissioner for the Environment "Overseer and regulatory oversight: Models, uncertainty and cleaning up our waterways" (December 2018)).

The report investigated the reliability of Overseer and whether decision makers can be certain that it is fit for use in a regulatory decision-making context. The PCE report emphasises the importance of ensuring a robust model given the obligations on regional councils when preparing regional planning provisions to evaluate the costs and benefits under s 32 of the Resource Management Act 1991 (RMA). While the use of Overseer had been scrutinised in a range of regional planning frameworks, including as

those frameworks have proceeded through the Courts (see for example the discussion in *Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 182), the PCE report concluded that there had been a lack of formal scrutiny of Overseer, and information around its use in a regulatory setting was lacking. The report recommended that a comprehensive evaluation of the model be undertaken.

In response to the 2018 PCE report, the Minister for the Environment and the Minister of Primary Industries appointed a Scientific Advisory Panel to review the Overseer model. The Overseer report was completed by the Panel in June 2021 and provided an opinion on Overseer's adequacy in a regulatory context (Science Advisory Panel "Overseer whole-model review: Assessment of the model approach" (MPI Technical Paper no: 2021/12, July 2021)).

The Panel expressed concerns with Overseer and the reviewers concluded that (at 96):

... we do not have confidence that Overseer's modelled outputs can tell [us] whether changes in farm management reduce or increase the losses of nutrients, or what the magnitude or error of those losses might be.

Following the release of the Overseer report, in August 2021 the Government also published its response to the Overseer Report (Ministry for the Environment and Ministry for Primary Industries "Government response to the findings of the Overseer peer review report" (August 2021)). The key concerns arising from the Overseer report are helpfully summarised in the Government's response as follows (at 6-7):

The specific areas of concern include that Overseer:

- *does not balance mass (that is, some nitrogen is not accounted for or is unexplained);*
- *treats the soil as a single homogenous layer, limiting its ability to model soil hydrological flows and, therefore, drainage of the soil solution and nitrate leaching*
- *does not adequately capture overland flow: such flow can, in some landscapes, be a significant pathway for losses of non-nitrate forms of nitrogen. Overseer has focused more on leaching of nitrate-nitrogen*

- *uses a form of climate data averaged over 30 years rather than actual climate data, with the consequence that drainage and episodic weather events (e.g., high rainfall events associated particularly with high nutrient loss risk periods) are not adequately represented.*

The Government response noted that, given the Panel's findings, less reliance can be put on Overseer by regional councils. However, the Government's response also recognised that in the meantime, regional councils will still need to implement their regional plans and process and enforce resource consents that utilise the Overseer model. The Government has signalled that over the next 12 months it intends to investigate alternative options and make "fit-for-purpose" tools available to councils. Whether this means an entirely new tool, an improved version of Overseer, or some other alternative, remains to be seen.

WHAT ARE THE REGULATORY IMPLICATIONS FOR CURRENT RESOURCE CONSENTS AND REGIONAL PLANNING FRAMEWORKS THAT USE OVERSEER?

As the Government's response has noted "Overseer is embedded in the daily work of many regional councils and resource users (particularly resource consent holders in catchments subject to nitrogen-leaching limits)" (at 15).

This is correct and the Overseer report itself does not change the validity of those existing planning provisions that rely on Overseer, nor existing resource consents that require compliance with Overseer derived nitrogen loss limits.

A rule in a regional plan must be treated as valid until a court declares otherwise (*A J Burr Ltd v Blenheim Borough Council* [1980] 2 NZLR 1 (CA)). Similarly, existing resource consents that require or rely on Overseer remain lawful. It is well established law that a resource consent is to be treated as valid until a court of competent jurisdiction determines otherwise (*McGuire v Hastings District Council* [2000] 1 NZLR 679 (CA)).

Unless the conditions of resource consents requiring the use of Overseer are changed (either by way of a RMA, s 127 application or review under RMA, s 128), regional councils must monitor and enforce them (RMA, s 35(2)(d)). Accordingly, the Government's response has acknowledged

that irrespective of the questions raised by the Overseer report, Overseer continues to have a role within a range of regulatory frameworks in New Zealand. The Government has confirmed that the existing version of Overseer will continue to be supported whilst changes are made to the model to address the criticisms raised by the PCE and the Overseer report.

In light of the questions raised in relation to Overseer, undoubtedly some regional councils will be looking at the extent to which it is appropriate to still require strict compliance with existing provisions and resource consent requirements that rely on Overseer. Inevitably, this will depend on the specific wording of the planning provisions or resource consents already in existence.

However, regional councils will need to exercise real care to ensure that they continue to implement their existing rule frameworks. The Environment Court decision in *Wellington Fish and Game Council v Manawatu-Wanganui Regional Council* [2017] NZEnvC 37 highlights the risks associated with councils purporting to fetter a decision maker's ability to freely consider the objectives, policies, rules and other requirements of any planning document set out in RMA, s 104(1)(b). Accordingly, it will be important that any guidance given to consent planners and decision makers does not fetter their ability to freely consider the relevant existing planning provisions.

In terms of the processing of new resource consents under existing planning frameworks that rely on Overseer, there may also be opportunities for decision makers to consider other information or material to help satisfy themselves that the effects of a proposed activity have been adequately assessed. This is consistent with the Government's response that recognises the use of Overseer, where it forms part of existing regional plans, will still be required. The Government's response states (at 8):

In the immediate term, regional councils will continue to implement their plans and administer consents to manage fresh water at the farm level. Councils will use all available evidence and will need to be careful not to rely solely on Overseer modelling for their understanding of total nitrogen losses. This will be particularly important where nitrate-nitrogen is not the dominant form of nitrogen loss. Where existing plans provide for alternative modelling approaches or for control to be exercised

using means not dependent on Overseer, those opportunities should be considered.

Similarly, councils will also need to carefully consider what conditions can be imposed on any resource consents to ensure that they meet the tests for imposing a condition on a resource consent, including that they are for a resource management purpose, are fairly and reasonably related to the proposed activity and are reasonable. Depending on the circumstances, councils should consider putting other conditions in place to control the extent of nitrogen losses (for example, by also imposing some controls over the inputs) or granting consents on shorter terms given the current uncertainties regarding Overseer and reflecting the precautionary approach of the RMA.

WHAT DOES THE FUTURE HOLD FOR OVERSEER?

At this stage, it appears that the Overseer report may not be the death-knell for Overseer and its use within regulatory frameworks. Indeed, the Overseer report is not binding and has itself has not yet been the subject of testing through the Courts.

The ambitious limit setting requirements of the NPS-FM which need to be given effect to by all regional councils and unitary authorities will be a significant incentive for all stakeholders with an interest in the links between farming activities and water quality outcomes and limit setting to address the identified deficiencies of the Overseer model.

In the absence of other alternative models being sufficiently developed to estimate nitrogen losses on a property basis, any failure for Overseer to be updated and thus confidently relied on may leave councils no option but to set limits relying on some form of input control (i.e. controls on stocking rates, imported feeds and fertiliser use etc). Input controls have none of the flexibility inherent in a model like Overseer that allows landowners and regulators to make decisions on resource use rather than being tied to existing patterns of activity. Input controls also come with their own scientific challenges. For example, designing input controls to account for the variabilities in the environment is difficult in terms of both developing sufficiently robust planning frameworks and ensuring that those plans are able to be successfully implemented.

The Government has clearly signalled that it is investigating options to address the issues that have been identified with

Overseer over the course of 2022. However, at this stage it remains unclear whether that will result in an improved version of Overseer, or something else. Irrespective, there is going to be increased scrutiny on the science relied on as regional councils develop new proposed planning provisions and those provisions move through the freshwater planning process. In this respect it is important to remember that the NPS-FM acknowledges that scientific knowledge will not always be perfect and will be subject to ongoing improvement. As Policy 1.6 of the NPS-FM recognises, in the absence of complete and scientifically robust data, the best information may include information obtained from modelling. The NPS-FM also acknowledges that a requirement to use the best information available at the time cannot be used to delay making decisions solely because of uncertainty about the quality or quantity of the information available; and if the information is uncertain, it must be interpreted in the way that will best give effect to the NPS-FM.

Depending on how the Government ultimately addresses the identified deficiencies with Overseer, and how confident the wide spectrum of interested stakeholders are in those

tools, we may well see a more cautious approach being taken when developing planning provisions to give effect to the NPS-FM. Ultimately, water quality data in receiving environments will be the yardstick.

Across the spectrum from farming stakeholders, through to iwi interests and non-government organisations looking to hold farmers to account on water quality, there is a shared interest in having a tool that enables regulators to model the losses of diffuse discharges of nitrogen at a property level. Indeed, the Government has clearly signalled a shift towards managing environmental limits for freshwater both under the NPS-FM, but also in the National Planning Framework under the proposed Natural and Built Environment legislation. However, this has the potential to be significantly stymied without a tool like Overseer being available to regulators and resource users.