# Reducing excessively high nitrogen leaching – Addendum to Chapter 15 of *Action for healthy waterways* Regulatory Impact Analysis

# Quality assurance statement

A quality assurance review panel from the Ministry for the Environment has reviewed the addendum to the Chapter 15 of Action for Healthy Waterways Regulatory Impact Analysis (RIA). The panel considers that it **partially meets** the quality assurance criteria. The RIA clearly and concisely outlines a summary of the problem, identifies options to address the issues, and assesses the options against a robust analytical framework. The RIA clearly outlines the costs and benefits, additional to those of the Action for Healthy Waterways package, that enables the additional impacts to be understood within the context. The panel's view is that a sufficient case has been made, using the evidence available, to justify the regulatory policy intervention proposed. However, the impact analysis is constrained by the fact that there has not been sufficient time to undertake public consultation on the potential options contained in the RIA nor to investigate alternative data sources or potential options stemming from the tools available under other regulatory systems. These limitations, however, are clearly articulated in the RIA and the panel considers that they are partially mitigated by the extensive consultation that has occurred to date on other related proposals to reduce excessive nitrogen leeching in the short and long term, within the wider Action for Healthy Waterways package. The panel also notes the stated intention to undertake a more thorough analysis of costs and benefits before regulations are developed.

# Relationship to Action for healthy waterways RIS

This Regulatory Impact Statement (RIS) is an addendum to chapter 15 of Action for healthy waterways part 2: Detailed analysis.<sup>1</sup>

This analysis considers ways to support the implementation of Cabinet decisions on the Action for healthy waterways policy package, and complements the previous analysis and recommendations. The recommendations in this RIS should be considered additional to the recommendations of the original RIS.

This RIS addendum has been assessed separately to the rest of the Action for healthy waterways RIS, to reflect the fact that further decisions on this particular topic have been made following Cabinet decisions on the wider package.

For brevity, this RIS does not repeat key information already included in the main RIS, such as the broader problem definition and objectives of Action for healthy waterways. For more information on this, refer to Action for healthy waterways Part I: summary and overall impacts.<sup>2</sup>

# Summary of policy issue

#### Previous analysis and options

The specific environmental issue this proposal helps address is outlined in full in Chapter 15 of Action for healthy waterways part 2: Detailed analysis.

<sup>&</sup>lt;sup>1</sup> <u>https://www.mfe.govt.nz/regulatory-impact-statements/action-for-healthy-waterways-part-11</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.mfe.govt.nz/regulatory-impact-statements/action-for-healthy-waterways-part-1</u>

In short, nitrate (N) has become an increasing problem in New Zealand's waterways in the past two decades. High nitrogen levels in rivers are associated with a range of adverse effects on the ecological health of waterways, with potential adverse impacts on the suitability of water for recreation, and as a drinking water source for humans and livestock.

The chapter provided three options to address excessive nitrogen quickly:

- Option 1: A consent requirement for all low-slope pastoral farms with nitrogen discharges over a threshold value (we consulted on a range, from the 70th to 90th percentile) and are located in catchments that are highly impacted by nitrogen. This option would use the nutrient budget software OverseerFM to establish the threshold<sup>3</sup>.
- Option 2: A national per hectare nitrogen fertiliser cap.
- Option 3: A requirement for all farms in catchments that are highly impacted by nitrogen to have a freshwater module of a farm plan (FW-FP)<sup>4</sup> in place by 2022.

Further options to address excessive nitrogen over the long-term were also considered in chapter 4 of Action for healthy waterways part 2: Detailed analysis.

The proposal assessed in this RIS fits within this broader suite of interventions to address excessive nitrogen, both immediate as assessed in chapter 15 and long-term as assessed in chapter 4. While it will help implement all of these proposals over time, it is most closely associated with the immediate interventions as both proposals relate directly to fertiliser, and both proposals are to be implemented over the next year or so. Hence is analysed here as an addendum to chapter 15.

#### Cabinet decisions

Cabinet agreed to progress option 2 above when it approved the Action for healthy waterways package on 18 May 2020.<sup>5</sup>

As part of its decision, Cabinet also agreed:

to direct officials to collect and report information on annual usage of synthetic nitrogen fertiliser applied across New Zealand annually<sup>6</sup>

Paragraphs 103 and 104 of the Cabinet paper provides more context behind the recommendation:

- 103. Taken together, we are proposing a robust and efficient outcome-based regime for managing nitrogen and excessive use of nitrogen fertiliser. Many stakeholders and submitters, however, wanted the Government to go much further with direct controls on farming inputs, such as a much stricter cap on fertiliser use and limiting stock numbers.
- 104. While we are confident that the proposed regime is sound, we want to make sure it is implemented in a way that delivers real results. We therefore propose that the Government commits to:

Overseer estimates the nitrogen being lost from a farm (below the root zone, and therefore able to be transported into waterways; as well as gaseous losses) based on nitrogen inputs and outputs, management practices, soil and climate factors. Overseer, can be used to determine how efficiently nutrients are being used on a farm, as well as testing the impact of management changes on nutrient losses.

<sup>&</sup>lt;sup>4</sup> The Freshwater Modules of Farm Plan proposals are outlined in a separate appendix.

<sup>&</sup>lt;sup>5</sup> See recommendations 85-93 in Appendix 1 here: <u>https://www.mfe.govt.nz/cabinet-papers/action-healthy-waterways</u>

<sup>&</sup>lt;sup>6</sup> See recommendation 163 in Appendix 1 here: <u>https://www.mfe.govt.nz/cabinet-papers/action-healthy-waterways</u>

### 104.1 monitoring and annual reporting on the use of nitrogen fertiliser across New Zealand beyond the requirements under the Climate Change Reporting Act and voluntary measures undertaken by the Fertiliser Association

### Scope and objective of RIA

This RIA assesses options for collecting and reporting information on synthetic nitrogen fertiliser use or sales beyond existing sources, in line with Cabinet's direction above.

The proposals already agreed by Cabinet do not currently provide any additional requirements for such monitoring. The additional information is needed to monitor overall trends in synthetic fertiliser use, which corresponds to environmental degradation caused by excess nitrogen leached into waterbodies. Monitoring the overall trend in synthetic nitrogen fertiliser use will allow the Government to monitor whether these policies are having the desired effect of reducing synthetic nitrogen fertiliser use and associated discharges to waterbodies.

Regional information would provide a richer picture of trends, as it would show whether the policies are having a different effect in different areas (which, once the NPS-FM is implemented, will be subject to different regional rules). In particular, it would allow monitoring of higher use of synthetic nitrogen.

# Stakeholder thoughts on the problem

The Action for healthy waterways public consultation included proposals to address excessive synthetic nitrogen use.

Over 4,000 submitters comment on proposals to reduce excessive nitrogen leaching. This includes:

- Over 500 unique submissions, with about 100 of them drawing strongly on the Beef+Lamb pro-forma submission (described below)
- 153 pro-forma submissions prepared by Beef+Lamb opposing options 2 (Nitrogen fertiliser cap) and 3 (Farm-plan approach), and supporting option 1 (Nitrogen discharge cap) provided the threshold is set proportional to the level of over-allocation of nitrogen
- 3,460 pro-forma submissions prepared by Greenpeace supporting option 1 (Nitrogen discharge cap) in combination with option 2 (Nitrogen fertiliser cap), and the phasing out of all synthetic fertiliser by 2025.

All three options have substantial numbers supporting and opposing. Overall, there is more support for a consent-based regime to reduce excessive nitrogen losses, or a fertiliser cap, or both in combination, than for a farm-plan based regime. However, this is strongly influenced by the large numbers of form submissions from Beef + Lamb New Zealand and Greenpeace New Zealand.

Further information on stakeholder thoughts on the broader policy is summarised in Chapter 15 of *Action for healthy waterways part 2: Detailed analysis*.

Stakeholders have not been consulted on options for collecting and reporting nitrogen use or sales. However, this change is to help implement proposals (both immediate, and long-term) to reduce excessive nitrogen leaching.

# Option identification

#### Status quo

Currently all importers and manufacturers of synthetic fertilisers containing nitrogen are required to report their emissions annually to the Environmental Protection Agency (EPA). Aggregated information is reported publicly by the EPA in its annual New Zealand Emissions Trading Scheme

Report. There are currently changes proposed to the Climate Change Response Act (CCRA) to increase the level of information reported. The status quo is outlined in more detail as part of option 3 below.

#### Options identified

The three most suitable options identified to enable the collection and reporting of information on annual usage or sales of synthetic nitrogen fertiliser in New Zealand are:

- 1. Require reporting of use data from farmers and end users of synthetic nitrogen fertiliser via an existing regulation making power (National Environmental Standard)
- 2. Requiring reporting of synthetic nitrogen fertiliser sales data from fertiliser companies under the Resource Management Act via a new regulation making power in the RMA (amend RMA)
- 3. Using information that will be provided under the amended Climate Change Response Act to calculate importation and manufacturing data on synthetic nitrogen fertiliser (modified status quo)

#### Summary assessment

Below is an assessment of each option against the action for healthy waterways criteria.<sup>7</sup>

The options are assessed against a status quo that assumes implementation of the wider Action for healthy waterways package. Therefore, costs and benefits are *in addition to* the rest of the package.

Criterion	Option 1 Farm level reporting via NES	Option 2 New RMA regulation making power	Option 3 Utilise existing CCRA information (modified status quo)
Effectiveness	+	+	0
Timeliness	-	-	+
Fairness	-	+	0
Efficiency		-	++
Principles of the Treaty of Waitangi <sup>8</sup>	0	0	0
Te Mana o te Wai <sup>9</sup>	+	+	0
Overall Assessment	-	+	+

<sup>&</sup>lt;sup>'</sup> More information on the criteria can be found under section 3.2 on page 15 of *Action for healthy waterways Part I: summary and overall impacts* here: <a href="https://www.mfe.govt.nz/regulatory-impact-statements/action-for-healthy-waterways-part-1">https://www.mfe.govt.nz/regulatory-impact-statements/action-for-healthy-waterways-part-1</a>

<sup>&</sup>lt;sup>°</sup> Principles of the Treaty of Waitangi - the options can make a contribution to protecting the taonga of water quality to the degree to which they are effective in improving water quality. In terms of partnership and participation, none of the options provide a clear role for partnership with Māori in developing/enforcing the initiatives.

<sup>&</sup>lt;sup>9</sup> Te Mana o Te Wai – the options can make a contribution to protecting the health and mauri of water to the degree to which they are effective in improving water quality.

In addition, below is a summary of the pros and cons of each identified option

Option	Pros	Cons
Requiring reporting of use data from farmers and end users of synthetic nitrogen fertiliser	Provides information on use rather than a proxy Provides information on actual year fertiliser applied	High compliance costs Inconsistent with Cabinet decision to apply reporting requirements only to Dairy farmers Issues with compliance and completeness of data given large number of people required to report
Requiring reporting of synthetic nitrogen fertiliser sales data from fertiliser companies under the Resource Management Act	Low systems cost for government to collect data as fewer fertiliser sellers Low compliance cost	Relates to sales so slightly weaker proxy for use as ignores farmer/retail stocks meaning it provides trend rather than actual year usage Requires legislative change Duplication of reporting requirements for fertiliser companies
Using information that will be provided under the amended Climate Change Response Act to calculate importation and manufacturing data on synthetic nitrogen fertiliser	Information already available Systems already in place to collect data so no, or very low, cost No compliance cost as data already provided No additional legal change required	Relates to manufacture or importation so slightly weaker proxy for use as ignores farmer/retailer stocks and producer stocks, meaning it provides trend rather than actual year usage Fertiliser companies report emissions rather than total N in fertiliser, so requires an additional calculation – though this is very straightforward due to the calculation being simple and set in legislation. Would provide national rather than regional reporting

# Option 1 - Requiring reporting of use data from farmers and end users of synthetic nitrogen fertiliser

Under option 1 all farmers would be required to report use of synthetic nitrogen fertiliser annually to their regional council. Central government would collate the information and use this for regular reporting on national and regional level synthetic nitrogen fertiliser use. The reporting would be used to test the effectiveness of interventions to reduce synthetic nitrogen leaching, by assessing the trend in actual synthetic nitrogen fertiliser use. A downward trend would indicate the policies are having the desired effect of reducing synthetic nitrogen fertiliser use, and therefore potentially reducing nitrogen leaching into waterbodies.

Cabinet have already agreed for all dairy farmers to report use of synthetic nitrogen fertiliser, through a new National Environmental Standard (NES) for freshwater. This requirement would simply be expanded to include all farm types, to provide information on total nitrogen fertiliser application.

It's estimated there are roughly 29,000 commercial farms in New Zealand. All or most of these farms would need to report fertiliser use in order to gain an accurate picture of total fertiliser applied nationally and in each region. While many will already calculate this information for use in the Overseer tool (and therefore will have this information on hand), it is not widespread outside of the dairy industry, and information is not always up to date.

Although not all farmers would be subject to the nitrogen fertilisers cap (which applies only to pastoral farms), the point of this reporting would be to provide information on total use, and therefore assess the overall trend in nitrogen fertiliser use over time.

Criterion	Option 1 – Farm level reporting via NES		
Effectiveness	+ This would be effective in that the information collected would correspond directly to the behaviour we wish to monitor (synthetic nitrogen fertiliser use) rather than a proxy (eg, sales). However, in practice it will be difficult to calculate a reliable estimate of use across the country and for different regions. It relies on those affected supplying consistent data that can be aggregated, to comply with the regulations and keep accurate records being supplied on time, a method for aggregating the data, and capacity for processing the fertiliser data of 29,000 farms. This would be costly to carry out.		
Timeliness	<ul> <li>Although the option can be implemented quickly via the freshwater NES (which is currently in development), the magnitude of reporting required means it is likely to take a long time to process and aggregate information.</li> </ul>		
Fairness	- The option would impact both high and low nitrogen fertiliser users alike. Those who use small amounts of fertiliser would still have to bear the cost of reporting, meaning the cost of providing the information is disproportionate to the environmental effects of their business.		
Efficiency	The magnitude of reporting will impose a significant cost for all 29,000 commercial farms, and may not result in reliable and consistent information being provided.		
Principles of the Treaty of Waitangi	<b>0</b> This is unlikely to either improve or diminish Treaty of Waitangi principles.		
Te Mana o te Wai	<ul> <li>This option would provide detailed data to support efforts to improve water quality, and hence Te Mana o te Wai, but will not directly improve water quality.</li> </ul>		
Overall Assessment	- While this option would capture the exact information required to monitor and report on use of synthetic nitrogen fertiliser, the scale of information provided/collected and the complexity of compiling this information means it is unlikely to improve on the status quo reporting, while at the same time imposing administrative costs on individual farmers and regional councils/processing staff.		

Below is a summary of how this option rates on the Action for healthy waterways criteria.

# Option 2 - Requiring reporting of synthetic nitrogen fertiliser sales data from fertiliser companies under the Resource Management Act

Under option 2 a new regulation making power would be added to the RMA to enable the Minister for the Environment to set regulations that require reporting on fertiliser sales. Reporting on sales would be used as a proxy for reporting on fertiliser use.

The change would be necessary because the RMA is not currently set up to require people to provide information on sales of products. Instead, it is focused on land-use, discharges, and other activities in (for example) the beds of rivers and lakes, or that divert waterways.

Targeting sales is more efficient than collecting the actual use information (see above) as it requires reporting from fewer sources (approximately 50 fertiliser sellers/importers, rather than 29,000 users). The CCRA receives reports from 11 companies, but we understand there could be about 40 additional fertilisers importers currently not captured (although these will make a fairly small proportion of total imported fertiliser).

The regulation making power would be broad enough to enable regulations to be made to require reporting of other nitrogenous fertilisers (not necessarily only synthetic nitrogen fertilisers). The regulation making power could allow the Minister to specify the level of detail required for reporting in the regulations themselves. For example, the regulations could require sales information to be broken down into regional totals, to provide information on regional trends (rather than a single national total) and at what level (eg, wholesale, retail, or even large-scale farms who import directly) sales should be reported at. The power would need to account for relevant privacy requirements.

The level at which sales are reported will need to be at the level where information on regional breakdown can be reliably obtained, and would need to be determined when developing the regulations. Ravensdown and Balance are the two main importers and manufacturers of fertiliser in New Zealand covering 98% of the market and supply chain for N fertiliser. There are 11 companies in total who report fertiliser sales under the CCRA, and a number of smaller operators (about 40) who do not report under the CCRA.

Ravensdown and Balance have regional depots and also provide direct cartage from their import and manufacturing facilities. Other rural supply firms such as farmlands also act as local brokers, but the product will come to a given region through the importer/manufacturer or their regional depot. If these businesses cannot report regional information to sufficient detail, the regulations may need to apply at a lower (eg, retail) level, which could affect hundreds of businesses, rather than just 50 or so. The level reporting would be required at would need to be determined as the regulations are developed.

Sales information is a fairly close proxy for actual use, as it is assumed that all fertiliser sold is eventually used, and therefore gives a close approximation of actual use (provided there is no double counting). This information would be used to establish the sales trend over time, which would be used to assess whether the policies aimed at reducing nitrogen levels in waterways are having the desired effect of reducing synthetic nitrogen fertiliser use (which is one contributor to high nitrogen levels in waterbodies).

It's worth noting that this proposal is for adding a regulation making power, rather than for the regulations themselves. If this option were to go ahead, any regulations would also require a RIA for the more detailed elements of the regulations. The assessment below has been done under the assumption that the Minister will wish to use the regulations.

Criterion	Option 2 – New RMA regulation making power	
Effectiveness	+	This uses sales as a proxy for fertiliser use, and therefore it would not directly capture information on the activity we wish to monitor - application of fertiliser to land. However, it is better than existing

Below is a summary of how this option rates on the Action for healthy waterways criteria.

	information, which is the national import and manufacture of synthetic nitrogen fertiliser.
Timeliness	<ul> <li>It will take some time to develop appropriate regulations in order to require fertiliser companies to provide the necessary information, meaning it may not make a meaningful contribution to the Government's objective for material improvement in freshwater ecosystem health within 5 years.</li> </ul>
Fairness	<ul> <li>The costs of this option would fall on those who sell fertiliser. These companies also benefit from contamination from nitrogen fertiliser use, and so could be considered 'fair' under this criterion.</li> </ul>
Efficiency	- Efficiency would depend on the level reporting is done at. Regulating at the point of import/manufacture (about 11 main companies) is unlikely to yield a reliable regional breakdown. Focusing at the supplier/retail level would, but would require reporting from more companies.
Principles of the Treaty of Waitangi	<b>0</b> This is unlikely to either improve or diminish Treaty of Waitangi principles.
Te Mana o te Wai	<ul> <li>This option would provide detailed data to support efforts to improve water quality, and hence Te Mana o te Wai, but will not directly improve water quality.</li> </ul>
Overall Assessment	<ul> <li>This option would provide some benefit beyond the status quo of monitoring fertiliser use using information collected under the CCRA. A big advantage is that it would produce the regional breakdown information requested by Ministers, at a lower cost than option 1. However, the regulations will likely be complex to develop.</li> </ul>

# Option 3 – Using information that will be provided under the amended Climate Change Response Act

Currently all importers and manufacturers of synthetic fertilisers containing nitrogen are required to report their emissions annually to the Environmental Protection Agency (EPA). Aggregated information is reported publicly by the EPA in its annual New Zealand Emissions Trading Scheme Report.

The Climate Change Response Act has strict restrictions around the EPA sharing information (s99 of the Act). However, under the Emissions Trading Reform Bill (currently scheduled to progress to third reading in June 2020), the EPA will be required to publish more detailed information, including the annual emissions of each importer and/or manufacturer of synthetic fertiliser containing nitrogen.

Emissions are calculated using a simple formula of total nitrogen in synthetic fertilisers times 5.72 (nitrogen in synthetic fertiliser means all nitrogen in synthetic fertilisers containing nitrogen that are imported to NZ or manufactured here (minus any exported) in a particular year). This is set out in the Climate Change (Agriculture Sector) Regulations 2010.

It would be straightforward to report the amount of nitrogen in synthetic nitrogen fertiliser by simply dividing the reported number by 5.72. Reporting wouldn't be able to happen until the data is made publically available, as it is collected specifically for reporting on emissions targets rather than water quality.

Reporting would be at the national scale, rather than a regional scale.

Criterion	Option 3 – Utilise existing CCRA information (modified status quo)		
Effectiveness	O This option does not provide any additional information beyond what is already planned to be published (eg name of importer/manufacturer/emitter). It therefore won't be effective in meeting Cabinet's direction to go beyond existing reporting requirements.		
Timeliness	<ul> <li>Reporting could start straight away using existing information, and we would have a reliable historical dataset to link new information to. However, because it would only be able to be based on publically available data, there will be a time lag in being able to access and report on the data.</li> </ul>		
Fairness	0 There is no impact to fairness beyond the status quo		
Efficiency	++ The cost of collecting this information is minimal as it does not require any further reporting from fertiliser companies, therefore any benefit derived from using this information would come at only a small administrative cost to central Government		
Principles of the Treaty of Waitangi	<b>0</b> This is unlikely to either improve or diminish Treaty of Waitangi principles.		
Te Mana o te Wai	<b>0</b> This is unlikely to either improve or diminish Te Mana o te Wai		
Overall Assessment	<ul> <li>This option would be an efficient way to assess the overall trend of synthetic nitrogen fertiliser use in New Zealand. However it would mask any trends within regions, and would not provide information for more targeted interventions if further interventions were required to reduce nitrogen fertiliser use.</li> </ul>		

# Options considered out of scope, or not considered

We considered amending the CCRA to enable reporting of more detailed information (eg, regional information). However, we considered such an amendment would likely be *ultra vires* as the purpose for collecting the information (to monitor freshwater quality) does not align with the purpose of the CCRA. Therefore, any option requiring legislative amendment would need to be to the RMA, which has the correct scope and purpose.

We also considered making regulations under the CCRA, but as regulations can only be made for climate-related matters, this was not considered possible.

Given the short timeframe to assess options, we were unable to assess other regulatory systems or data sources (eg, the Commercial and Consumer regulatory system) which have information disclosure powers, or existing information sources from Statistics New Zealand.

# Recommendation

On balance, we consider both options 2 and 3 viable. Ultimately a decision between the two options depends on a value judgement between efficiency/cost, and effectiveness/provision of more data.

Option 3 is preferable from an efficiency perspective. Utilising existing data via the CCRA would be more efficient (it would impose no extra cost to fertiliser companies, and some extra cost to Government to re-use the data once published) and quicker to implement (existing collection and

reporting methods are already in place while still providing trend information on nitrogen fertiliser sales).

Option 2 is preferable from an effectiveness perspective, as it provides more detailed information on nitrogen fertiliser sales, albeit at a greater cost than option 3.

In theory, option 1 would be ideal as it provides the additional detail required, and is a better fit to the RMA framework as it captures actual fertiliser use (which is clearly regulated by the RMA) rather than sales (which are not currently regulated under the RMA). It would also be timelier than option 2 as the requirements could be drafted into the freshwater NES, which is in development at the time of writing this RIA. Option 2 still requires regulations to be developed.

However, option 1 is unlikely to be effective in practice. The approach is unlikely to provide reliable or accurate aggregate data on synthetic nitrogen fertiliser use, and would likely cost a lot to obtain. It would require up to 29,000 farmers to report on fertiliser use, and relies on those farmers keeping accurate records, and reporting accurate information on time. On top of the considerable (aggregate) cost to farmers, regional councils or Government agencies collecting the information will also face costs chasing up people whose reporting is either late or incomplete. Data would need to be cleaned and quality assured to ensure it is of sufficient quality, and would be open to underreporting.

# Summary table of costs and benefits of the preferred approach

Of the two preferred options, we have only provided a summary of the costs and benefits for option 2. Option 3 is a modified status quo, and would impose virtually no additional cost (other than additional administrative cost for central Government, which can easily be absorbed into baseline funding) with additional benefit of greater use of existing data.

It is worth emphasising that option 3 is to add a regulation making power to the RMA. This will not have any direct cost or benefit until the regulations are developed and in force.

Until the actual regulations are drafted, it will be difficult to determine the costs and benefits, but we can approximate them and speculate on their nature.

The tables below are filled in under the assumption that the regulation making power will be used.

Affected parties	Comment:	Impact	Evidence certainty
		ation	
Regulated parties	Cost for fertiliser companies to employ staff to produce the required information. May require a bespoke reporting format depending on the detail of the regulations	Likely to cost tens of thousands of dollars per company to produce extra reporting This could be 50, if importers/manufacturer have sufficient information or many	Medium
		hundreds of businesses if reporting is required at	

retail level

	Extra scrutiny may contribute to reduced sales and lower profits for companies selling synthetic nitrogen fertiliser	Difficult to determine as this would be in combination with fertiliser cap proposal – could be hundreds of thousands of dollars per annum	Low
Regulators	Cost to regulators (either central government or local government) to collect the information and to chase up any late supply of data	Likely to cost hundreds of thousands of dollars per annum	Medium
	Cost to central government to compile, clean and report information	Likely to cost tens of thousands of dollars per annum	Medium
Wider government	None		
Other parties	Could increase the cost of fertiliser for end users	Could result in small cost increase per farm, depending on quantity of fertiliser used	Medium
Total Monetised Cost		Likely to be between hundreds of thousands to a million dollars in total.	
Non-monetised costs			

Expected benefits of proposed approach, compared to taking no action				
Regulated parties	None	None		
Regulators	Provides information for monitoring overall trend of synthetic nitrogen fertiliser use in regions.	Low	Medium	
Wider government	Potentially provides a greater source of information for environmental reporting statistics, and future policy interventions (eg, nitrogen allocation)	Medium	Medium	
Other parties	ENGOs will benefit from more detailed information on trend in fertiliser sales, greater awareness of regional trends.	Low	Medium	
	Potential water quality gains from reduced nitrogen discharges	Low	Low	
Total Monetised Benefit	No monetised benefit			

Non-monetised	Benefits derived from greater	Low	
benefits	information allowing for more precise		
	estimation of fertiliser us.		

We expect the benefits of the regulations made under this new power will outweigh the costs to fertiliser sellers, or else we would not consider this option viable. This view is based on the fact that the additional information generated would be used to make important decisions about the current and future management of our freshwater resources by both evaluating policy proposals (is synthetic nitrogen fertiliser use reducing?). Further, this data would result in better informed policy decisions (eg, on nutrient allocation) and that these policies will have significant benefit to New Zealanders.

A more thorough analysis of costs and benefits will be needed before regulations are made, and will ultimately determine whether such a power should be used. Such an analysis cannot be competed at this stage, as the precise nature of such regulations cannot be determined in the short time available.