

## **NEWS RELEASE 18-22**

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## CHATHAM ROCK PHOSPHATE COMMENTS ON NZ GOVERNMENT WATER QUALITY OBJECTIVES

**WELLINGTON** New Zealand – Chatham Rock Phosphate Limited (TSXV: "NZP" and NZAX: "CRP" or the "Company") noted the Government announcement this week concerning its water quality objectives and believes it can contribute significantly to those aims.

The Government is promising a noticeable improvement in water quality within five years and released a blueprint to improve freshwater quality.

Minister David Parker noted the Government expects central and local government, farmers and businesses to do more. New rules will be in place by 2020 to stop freshwater quality degradation through a new National Policy Statement for Freshwater Management and a new National Environmental Standard. The rules will include controls on intensive land use practices.

Minister Damien O'Connor said primary sectors are crucial to an environmentally sustainable high-value economy supporting the wellbeing of all New Zealanders to grow a sustainable and productive primary sector within environmental limits. With respect to agriculture the key issue being addressed is fertiliser run-off into waterways, particularly nitrogen and phosphate.

This is an issue Chatham Rock Phosphate has highlighted for several years, as we have a proven, very effective solution to the problem. In 2012 we provided detailed briefing notes on this to the then Minister for the Environment and said:

Chatham Rise rock phosphate, being a direct application fertiliser, offers the solution to run-off into waterways as a range of scientific studies over many years has shown direct application rock phosphate offers strong environmental benefits.

CRP has evaluated studies comparing the use of rock phosphate and super phosphate on New Zealand and international farmland. They show when applied directly reactive rock phosphate (RPR) is both a highly effective sustained release fertiliser and resistant to leaching.

The findings of the studies – some going back several years – are supported by Dr Bert Quin, probably New Zealand's pre-eminent expert on the use of rock phosphate fertiliser, who first conducted extensive field trials while working as a scientist for government agencies during the 1980s.

Dr Quin believes nutrients continue to enter waterways from agricultural land, simply because of the type of fertilisers we use. He says traditional fertilisers used in New Zealand have been single superphosphate ('super'), which supplies phosphorus (P) and sulphur (S), and urea for nitrogen (N). He says their biggest problems are they are 'leaky' fertilisers.

"Super is prone to run-off of applied phosphorus into waterways in the weeks after application, leaching into shallow sub-surface drains and water bodies on dairy farms, and being leached right through soils with low phosphorus retention such as those in Northland and the West Coast. Urea is prone to volatilisation (evaporation) losses as ammonia gas to the atmosphere, nitrate leaching and nitrous oxide GHG emission.

"By far the most cost-effective option for phosphorus is reactive phosphate rock or 'RPR'.

This is a natural mineral, formed on the sea floor originally, which is a very effective source of sustained-release phosphorus, ideal for maintaining high-producing pasture and extremely resistant to leaching.

Dr Quin estimates switching from super phosphate to RPR and RPR/DAP (diamonium phosphate) blends would reduce average run-off losses of P into waterways by 80-90%.

"This would take P losses below the trigger levels necessary to keep our lakes in a eutrophied state. In 5-10 years, water quality in the Rotorua lakes, for example, would be massively improved.

"Sulphur requirements are easily met by adding in just the required amount of elemental S, by itself or with a bit of gypsum in dry areas. Like RPR, elemental S is a sustained release fertiliser. The water-soluble sulphate form of S in super is very easily leached from many soils. As this happens, it takes valuable cations such as calcium and magnesium with it."

Dr Quin said back in 2012: "the time is right for people with the political will and determination to save New Zealand's environment to stand up and be counted, and force change. "If we do not, we will come to be viewed as the 'gutless generation' by our children and grandchildren."

It would appear the Government is finally on the same page as very similar sentiments were included in this week's announcement – "we're not going to leave the hard issues for future generations."

Chatham has this week written to Ministers Parker and O'Connor pointing out using Chatham Rise rock phosphate offers these significant water quality benefits as well as improved soil health, reduced carbon emissions, minimal cadmium levels, sourcing a significant proportion of our phosphate fertiliser needs from an ethical source, significant export earnings, regional port development and annual income tax and royalties (based on present fertiliser prices) of over \$40 million.

We remain confident that these benefits will result in this project gaining the support within Parliament and other stakeholders that it so richly deserves.

For further information please contact

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