

## 22 November 2016

## Incorporation of RPR into Overseer a big step forward.

Overseer is a software tool widely used by New Zealand farmers to tailor fertiliser use to optimise farm production while minimising environmental impacts.

Developed originally by AgResearch, it's now jointly owned with the Ministry of Primary Industries and the Fertiliser Association.

Recently the software application was upgraded and now recognises the benefits of reactive rock phosphate (RPR) as a fertiliser. In particular, the use of RPR results in less phosphate run-off into streams and lakes than would be the case with manufactured phosphate fertilisers.

Overseer calculates the use of RPR immediately reduces phosphate run-off by 18%. According to independent studies, changed farming practices resulting from using RPR over an extended period could result in up to 80% less phosphate run-off.

This advance represents formal recognition by government and the fertiliser industry that RPR offers a more environmentally friendly source of phosphorus to New Zealand farmers. Over time this should result in increased use of RPR as it is substituted for superphosphate and other phosphate fertilisers.

This is very relevant to Chatham Rock Phosphate because our rock phosphate is a particularly effective form of reactive rock phosphate, demonstrated by extensive field trials undertaken in the mid-1980s and reinforced by recent tests.

As well as representing a secure local source, Chatham Rise-sourced RPR contains ultralow levels of cadmium levels and creates far fewer carbon emissions, so has a much lower carbon footprint than current northern hemisphere supplies.

As the Chatham Rise deposit will likely not be mined until 2020, we have identified several overseas sources of RPR and can import this rock on request. We are already working with a private New Zealand-based fertiliser company to satisfy the existing demand for reasonably priced material.

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## **About Chatham Rock Phosphate**

Chatham Rock Phosphate, a publicly listed company, was granted a mining permit in 2013 to develop New Zealand's only significant source of environmentally friendly

pastoral phosphate fertiliser and is now preparing for a revised environmental consent application.

Our role as custodian of this resource is focused on delivering a secure and sustainable local supply of low-cadmium phosphate that will reduce fertiliser run-off into waterways, produce healthier soils and shrink fertiliser needs over time.

The resource has an estimated worth of \$5 to \$7 billion, representing one of New Zealand's most valuable mineral assets and is of huge strategic significance because phosphate is essential to maintain New Zealand's high agricultural productivity. Local and international investors have contributed more than \$40 million to develop the project's financial viability, environmental benefits and impacts, technical and logistical requirements, local and international product uses.

We propose to extract up to 1 million tonnes of phosphate nodules from the top half metre of sand on identified parts of an 820m² area on the Chatham Rise, 450km off the west coast of New Zealand, in waters of 400m. Our environmental consenting process has established extraction would have no material impact on fishing yields or profitability, marine mammals or seabirds.

In progressing plans to submit a new application we are working with government officials to seek improvement in the permitting process and iwi, academic, industry and central government input to ensure New Zealand can benefit from an environmentally superior phosphate source.

Progress is continuing to achieve a Toronto Stock Exchange listing, to provide a more useful share-trading platform for overseas shareholders and facilitate the capital raising needed for the consenting process and beyond.

We are also seeking to own other sustainable rock phosphate sources, to move from being a single project company and take more control of our destiny.