

Company information

Managing Director - Chris Castle

Level 1, 93 The Terrace,
Wellington New Zealand
PO Box 231, Takaka 7142, NZ

chris@crpl.co.nz

Phone + 64 21 558 185

www.rockphosphate.co.nz

About the Company

Chatham Rock Phosphate (CRP) aims to be the premier supplier of direct application phosphate to the New Zealand and global agricultural sector. We are passionate about the benefit of direct application fertiliser to sustainable farming and agricultural practices.

Our objectives remain to:

1. Achieve consent of the Chatham Rise project and develop the asset
2. Diversify our product mix to include other phosphate resources
3. Maintain our involvement at the forefront of the marine minerals sector to leverage our expertise as a project pioneer
4. Develop a pathway for CRP products for the agricultural and retail sectors

CRP holds an offshore mining permit over an area of the Chatham Rise, off the coast of New Zealand, known to have significant seabed deposits of rock phosphate. The new Exclusive Economic Zone environmental consenting regime came into force in June 2013 and the company's application was among the first to be considered under the new regime. The application was lodged in July 2014 and declined by the Environmental Protection Authority in February 2015.

Share Information as at 15 September 2016

NZAX code	CRP
Share price	1.1c
Shares on issue	829.8 million ⁽¹⁾
Market capitalisation	\$NZ9.1 million
Financial year end	31 March
Industry sectors	Mining, agriculture

⁽¹⁾ Issued capital will reduce to ~ 9.7 million shares after RTO and TSX.V listing

Licence Information

Exploration licence **MPL50270**

Mining Permit **20 year permit issued in December 2013 for 820 km²**

Marine consent **A decision to re-apply will be made in late 2016**

The mining permit area of 820 km² is 450 km east of Christchurch, at a depth of around 400 metres on the Chatham Rise and in New Zealand territory. Estimated reserves are 23.4 million tonnes.

An operational start date of 2020 is proposed, subject to obtaining the Marine Consent and entry into a mining contract (which would include arrangements for a suitable modified vessel to undertake the mining).

An initial mine life of 15 years is proposed and the company anticipates investigations during this initial mining phase may identify additional areas for mining. An additional permit would be needed to mine outside the 820 km² area.

History of the licence area

The deposit, formed 7 to 12 million years ago, was discovered by New Zealand scientists in 1952 and extensively explored during the 1960s, 1970s and 1980s by a range of private and public sector scientists.

An estimated \$70 million in current dollar terms was spent on at least 7 different voyages, each involving several weeks. The data collected means the deposit is now very well defined. The best-sampled area of 380 km² has a resource of 23.4 Mt.

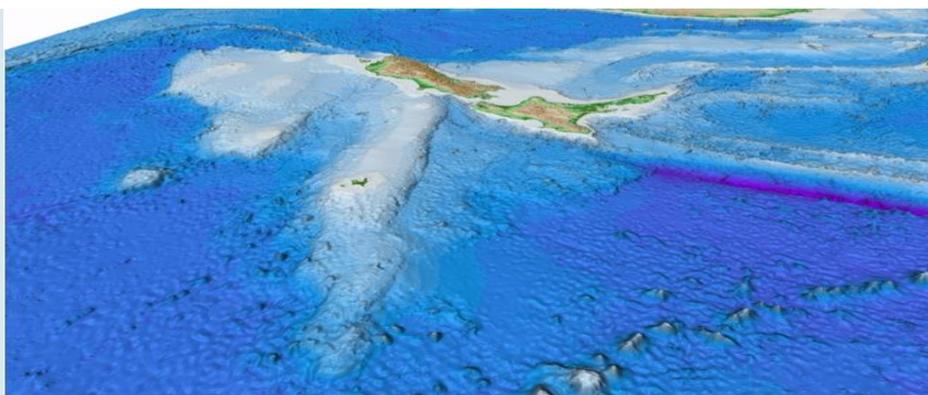
The price of rock phosphate has risen dramatically (at one time 10-fold) over recent years, peaking at \$500 a tonne in 2008 before falling back to \$90 a tonne. The price in recent years has been \$US101-200 per tonne, depending on grade and other rock attributes.

Extraction techniques have improved radically in recent years and extraction costs are expected to be substantially lower than the comparative cost of buying and shipping rock phosphate to New Zealand from the other side of the world.

Mineral extraction and construction is now routine in shallow seas. Even in the 1970s manganese nodules were being mined at depths 10 times greater than envisaged on the Chatham Rise. Nautilus Mining has estimated hard rock mining costs of \$US50 to \$US65 a tonne at depths of 2,000 metres and North Island iron sands are expected to be extracted from offshore deposits (at shallower depths) for \$US4 to \$US15 a tonne.

JORC compliant resources

- Inferred Resources of 80 million tonnes at an average grade of 290 kg/m³ for a contained 23.4 million tonnes of phosphorite
- Additional exploration potential is in the order of 40,000,000 m³ with 8 to 12 million tonnes of contained phosphorite at grades between 200 and 300 kg/m³



Future milestones

Sept - Dec 2016	Decision on application for marine consent
March – June 2017	Marine consent application submitted
Sept – Dec 2017	Marine consent granted
Q2 2020	Commence Mining

Key Chatham project selling points

1. The project is expected to be highly profitable given its adjacent location (no incoming freight costs) and low mining costs.
2. Estimated mining costs equate to the cost of shipping a competing product from the other side of the world. The world rock phosphate price has to collapse to near zero before CRP can't compete.
3. Annual forecast earnings before royalties and tax are presently estimated at approximately \$NZ94 million.
4. The project has been independently valued at \$NZ300m to \$NZ472m
5. Chatham will pay an estimated \$NZ33 million in annual taxes and royalties, plus millions in port charges
6. The project will create many high value and knowledge-based jobs in the port, on the mining ship, undertaking environmental monitoring and broader scientific research, in the agriculture and hospitality sectors and on the Chatham Islands.
7. The project economics are hugely favourable when compared to fish bottom trawling. Revenue from extracting phosphate would be \$NZ 9,700,000 per km² annually, compared with \$NZ9,000 per km² from trawling.
8. Chatham offers security of fertiliser supply for the agricultural sector in New Zealand.
9. The product's environmental benefits are a much lower run off impact on lakes and rivers, much lower cadmium and much lower carbon footprint.
10. Chatham is the ethical fertiliser supply option - the current main phosphate source is from a disputed territory in North Africa.
11. The first environmental hearing concluded mining would have no significant impact on fishing yields or fishing profitability marine mammals or seabirds.
12. The project could help New Zealand become a world leader in marine technology and expertise worth billions and will enhance the knowledge base of the marine environment to help identify areas most deserving conservation.

The environmental consent

Chatham plans to go through the consent process again, and will work with the Environmental Protection Authority to improve the process. Chatham expects this will involve some information previously presented being acknowledged as having been resolved. We plan to discuss the 70-plus conditions we offered to the EPA with stakeholders and expect this will significantly reduce opposition by these parties.

Chatham recognises there will be unavoidable impacts in mined areas, but the area mined each year is small - 30 km², and the application will propose ways to protect the most important areas. Other mitigation proposed includes recolonisation trials.

Independent experts convened with Chatham's experts during the hearing. They agreed, with respect to the following perceived project impacts, that:

- Mining operations, including sound, are unlikely to affect marine mammals or sea birds
- The mining area is not critical for commercial fish species or spawning
- There would be low to negligible effects on major fish stocks and be no reduction in fisheries productivity due to mining
- Toxicology effects in water column will be very low
- Radiological risk for marine life is negligible
- No biomagnification of uranium or other metals in fish
- Uranium accumulation in soils has and will continue to occur from use of all phosphatic fertilisers



Why the EPA committee declined the first application

- It didn't understand or trust the numerical modelling or believe monitoring could protect stony corals
- It didn't believe the economic benefits of the project
- It didn't acknowledge the environmental benefits of the project
- It gave considerable weight to the conservation value of a benthic protection area.

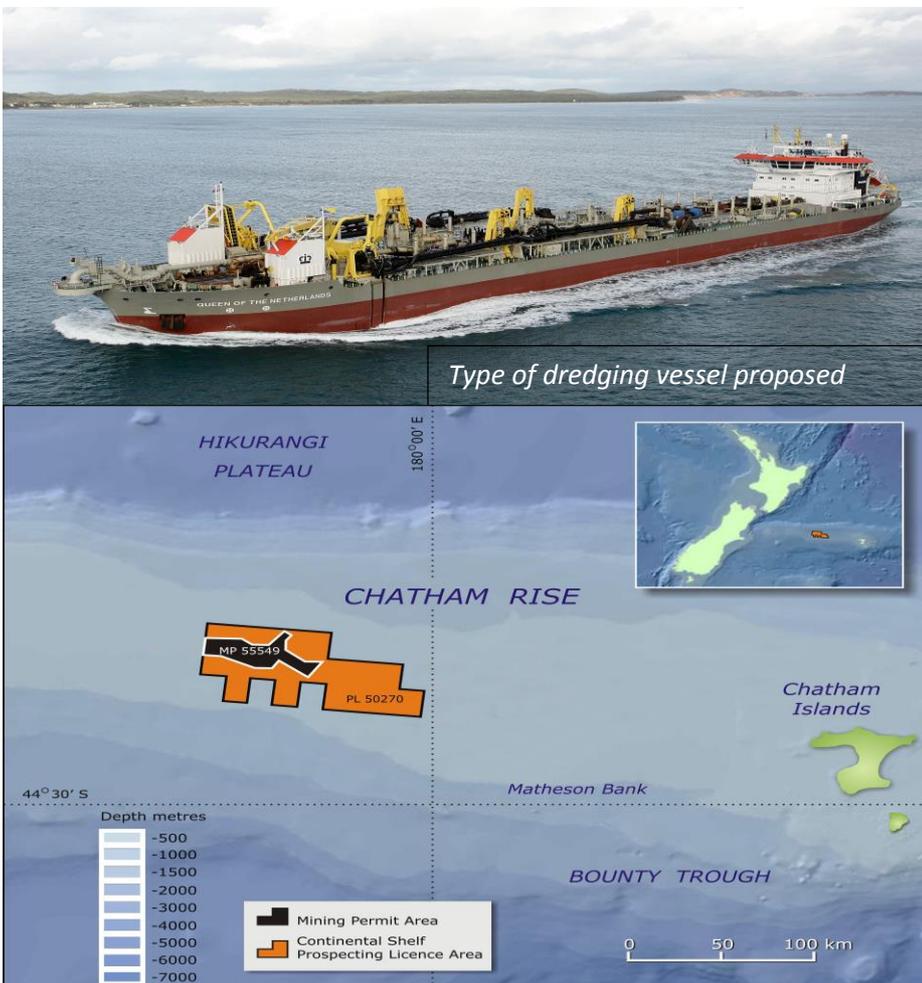
Key environmental concerns raised:

- Removal of seabed and associated biota (e.g. corals)
- Sediment plume generation and dispersal, including potential impacts on local environment and adjacent deepwater fisheries
- Interactions with marine mammals and seabirds
- Trophic impacts
- Mining inside a Benthic Protection Area (no bottom trawling)

EEZ Act purpose:

To **promote the sustainable management of the natural resources** of the exclusive economic zone and the continental shelf.

The EPA's overarching objective includes contributing to the management of the environment and natural and physical resources.



Key Financials for the year to 31 March in \$NZ

	2016	2015	2014
Net finance income	4,337	3,981	16,146
Admin expenses	641,812	2,542,585	(1,441,547)
Profit/loss before tax	(817,898)	(27,350,407)	(1,428,245)
Total non current assets	4,209,597	3,967,676	22,061,781
Total assets	4,753,540	4,259,832	22,877,591
Total current assets	543,943	292,156	815,810
Total current liabilities	990,559	1,000,099	1,252,207
Equity	3,762,981	3,259,733	21,625,384

Total equity and liabilities

Equity

Total equity and liabilities

Diversification Strategy

Chatham is focusing on the areas of the consenting process that need fixing before it makes a final decision to resubmit, so it can be confident it will receive an environmental consent next time.

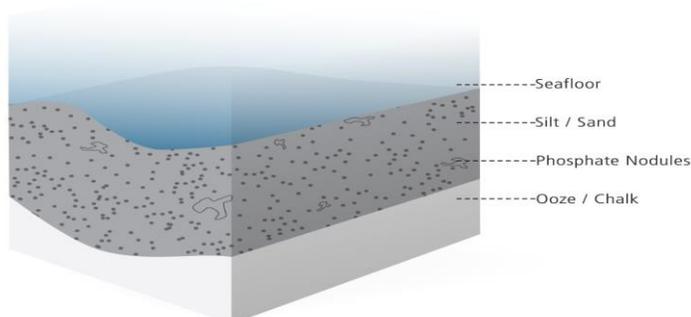
However the company aims to broaden its investor appeal by diversifying both its portfolio of interests and its access to capital markets through listing on the TSX-V market in Toronto.

As well as holding five marine applications in Namibia, it is developing relationships with other players in the market, maintaining its relationship with Boskalis, looking at other projects and entering the phosphate trading market.

Capital Movements - funds raised

	Shares	Funds
2010 - 2012	106,830,032	19,934,445
2013	13,736,488	4,610,906
2014	67,095,889	8,904,584
2015	214,815,166	1,517,469
2016	404,681,994	2,514,035
Total	692,607,110	36,588,994

CHATHAM RISE SEAFLOOR COMPOSITION



Governance

Directors

Robert Goodden (chair) - appointed 2013
 Chris Castle (President & CEO) - appointed 2004
 Dr Robin Falconer – appointed April 2013
 Jill Hatchwell – appointed November 2008
 Linda Sanders – appointed November 2008

Executives

Chris Castle - President & CEO
 Ray Wood – Chief Operating Officer
 Najib Moutia – VP Strategy and Sales
 Dr Robin Falconer – Principal Scientist
 Campbell McKenzie – VP Technical Services

Chatham

**Rock
Phosphate** TM