



17 July 2014

Ray Wood
Chatham Rock Phosphate Ltd
PO Box 10-668
Wellington 6143

Dear Mr Wood

Request for further information from Chatham Rock Phosphate Ltd

The Decision Making Committee (DMC) requests the following information under section 42 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act).

Economics

In order to better understand the economic model provided by CRP in its application:

Commercial Viability

- What current and future potential markets has CRP identified for its phosphate product, and what is the basis of CRPs assumption that it can penetrate up to 50% of the NZ market as well as other markets?
- On what basis was it concluded that a drop of 32% in the commodity price would render the economic model uneconomic?
- The application mentioned the possibility of "other potentially valuable minerals" being found on the Chatham Rise. Have any indications been received of the presence of such other minerals in the area for which marine consent is being sought?

Benefit to New Zealand

- CRP includes a percentage of ownership from outside New Zealand. How has this foreign ownership component been accounted for when assessing the economic benefits to NZ?
- What is CRP's understanding of the current situation in regard to meeting NZ- based infrastructure requirements for the stock piling of phosphate and servicing the mining operation?
- Is beneficiation of the 22% P₂O₅ (average) intended? If so, how and where will this be done and to what expected percentage?
- Further information to confirm the lower environmental impact from the use of fertilisers containing lower cadmium concentrations and how water quality will be improved.

Commercial Fishing

In order to understand the effects of the proposal on commercial interests, the following further information is sought:

- What research underpins the conclusion that the project would have "little or no impact" on commercial fishing on the Chatham Rise?

- Under a worst-case scenario, what does CRP consider the maximum economic impact on commercial fishing? e.g. on quota value.

Operational Viability and Environmental Effects

In order to better understand the operational viability and the potential environmental effects of the proposed mining operation:

- CRP has advised, in response to our earlier request for additional information, that it is unable to provide any information on the use of similar proposed mining equipment at similar depths (250-450m, equivalent to 26-46 atmospheres pressure) in the marine environment. However CRP notes that “conventional suction hopper dredging is used widely throughout the world (generally to maximum water depths of around 200 m) and the likely impacts are in a general sense well understood”.

It would be helpful to the DMC to see reports and studies on such mining projects, including if possible environmental impact assessments and commentary on the efficacy of mitigation strategies that were implemented.

Exclusion Areas

- Justification of the appropriateness and validity of the zonation model for identifying areas of high biodiversity, and limitations of using this approach.

Timeframes

Within five working days from the date of this request you must either provide the information or advise the EPA if you agree to provide the information or not. If you agree to provide the requested information, it would be helpful to the DMC if it could be available by 4 August 2014.

Request for expert advice and reports

The DMC proposes to commission expert advice under section 44 of the EEZ Act in the areas outlined below. In each subject area, the expert will be required to undertake an independent assessment of the following information:

- CRP marine consent application;
- Any reports provided in accordance with section 44 of the EEZ Act;
- Submissions;
- Any further information provided by CRP;
- EPA staff report; and
- Applicant’s evidence.

The authors of the expert advice may also be used for conferencing and attend the hearing.

This information is being sought in order to help the DMC understand the risks, benefits and effects of the project and to ensure that it has the best available information on all relevant issues.

1. Sediment Modelling

Context- Aspects of the Environmental Impact Assessment that consider effects on the marine ecosystem rely heavily on the assumptions and findings of the plume dispersion modelling work and associated investigation work (including the re-suspension study).

Advice to be commissioned - An independent assessment from Gardline of the sediment modelling set out in CRP marine consent application documents.

2. Marine Mammals

Context - A number of cetacean species sighted within the Chatham Rise study area are regarded as endangered under New Zealand and international threat classification systems.

Advice to be commissioned - EPA will commission advice from a suitable expert to provide an independent assessment of the effects of the CRP project on marine mammals and to advise on appropriate mitigation measures.

3. Birds

Context - The Environmental Impact Assessment notes at least 40 bird taxa use the Chatham Rise to some extent. A number of these have been identified as having 'at risk' conservation status under New Zealand and international threat classification systems.

Advice to be commissioned - EPA to commission Boffa Miskell to review the impacts on seabirds of the project and to identify appropriate mitigation measures.

4. Trophic modelling

Context - The ecosystem modelling of the Chatham Rise has been undertaken to produce a food web and determine the trophic importance (TI) of ecosystem components. This model has been used to show how various components of the food web interact with one another.

Advice to be commissioned - EPA to commission advice from suitable expert to provide a critical analysis of trophic modelling and commentary on the results and conclusions reached.

5. Water Quality and Sediment Chemistry

Context - Sediments of the Chatham Rise seabed contain a range of trace elements including heavy metals and radioactive elements. Some of these elements are elevated in phosphorite nodules and sediments.

Advice to be commissioned - EPA to commission advice from suitably qualified expert/s to assess the effects of mining on water quality and chemistry and the potential impacts of decreased water quality on the marine environment. The expert will also assess the appropriateness of using ANZECC guidelines in Appendix 11 of the application.

EPA to commission advice from suitably qualified radiation expert/s to:

- critically evaluate the information provided with respect to radioactive elements, such as uranium, strontium and caesium, and their potential impact;
- provide a comparison with safety threshold levels for the protection of human health and for marine organisms of the Chatham Rise; and

Timeframes

The above experts are to be commissioned with a view to providing reports in the week of 11-15 August 2014.

Possible Further Requests

We note that further requests for information from CRP and/or experts might need to be made once the DMC has reviewed submissions concerning the application.

Right to Object

In accordance with section 101 of the EEZ Act, you may object to the EPA's decision to commission these reports. Any objection must be made in writing and received by the EPA no later than 15 working days from receipt of this letter.

If you have any questions or further queries please do not hesitate to contact me on 04 474 5487 or email kim.morgan@epa.govt.nz

A handwritten signature in black ink, appearing to read 'K Morgan', written in a cursive style.

Yours faithfully

Kim Morgan

Project Leader, Exclusive Economic Zone (EEZ)
Environmental Protection Authority