

BEFORE THE HEARING PANEL

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of the applications by Hirock
Limited to the Palmerston North City Council
(LU 6962) and the Manawatū -Whanganui
Regional Council (APP-2022203991.00) for
resource consents associated with the
expansion and operation of an existing
quarry at 167-257 Kendalls Line,
Palmerston North

EXPERT CONFERENCING

JOINT WITNESS STATEMENT – EROSION AND SEDIMENT CONTROL

15 May 2023

A. INTRODUCTION

1. This joint witness statement relates to expert conferencing on the topic of Erosion and Sediment Control Measures.
2. This joint witness statement relates to resource consent applications lodged by the Hirock Limited (Applicant) to Palmerston North City Council (PNCC) and Manawatu-Wanganui Regional Council (Horizons), to be processed jointly, for the expansion of an existing quarry at 167 - 257 Kendall's Line, Palmerston North.
3. The expert conferencing was held by Microsoft Teams at 9:30 am Friday, 12th May 2023.
4. Attendees at the conference were:
 - a. Kerry Pearce, Bryant Environmental Solutions Ltd for Horizons/PNCC;
 - b. Annette Sweeney, Good Earth Matters Consulting Ltd for the Applicant;

B. EXPERTISE

5. I, Kerry Pearce, hold a Bachelor of Applied Science (Agriculture) degree from Massey University and am a member of the New Zealand Association of Resource Management. My role is as the s42A reporting officer in respect of Erosion and Sediment Control Measures. My experience is as detailed in section 1.0 of my s42A report and my involvement to date in the application is as s42A reporting officer on this subject matter. I am familiar with the site and visited the site on 23 August 2022. While this consent is not before the Environment Court, I have read the Code of Conduct for Expert Witness, Section 9 of Practice Note 2023. Accordingly, I have complied with the Code in the preparation of this joint witness statement.
6. I, Annette Sweeney, hold a Master of Science (Resource Management) from Lincoln University and Bachelor Degree of Engineering (Natural Resources, Hons I) from University of Canterbury. I am a Chartered Professional Engineer and a Fellow of Engineering New Zealand. I have worked in the Manawatū-Whanganui region as an environmental engineering and resource management professional for over 20 years. I am a Director and Principal of Good Earth Matters Consulting Ltd. I am familiar with the site and the surrounding area. The Erosion and Sediment Control Plan submitted as part of the application (November 2022) was prepared by my staff with myself providing technical guidance and undertaking the technical quality review of that document. While this consent is not before the Environment Court, I have read the Code of Conduct for Expert Witness, Section 9

of Practice Note 2023. Accordingly, I have complied with the Code in the preparation of this joint witness statement.

C. PURPOSE AND SCOPE OF CONFERENCING

7. The purpose of conferencing was to identify, discuss and highlight points where there is agreement or disagreement on matters pertaining to erosion and sediment control measures arising from the resource consent applications, the submissions on them and the joint (PNCC and Horizons) s42A reports.
8. The scope of the issues addressed at this conference included:
 - a. Adequacy of existing site erosion and sediment control measures
 - b. Proposed Erosion and Sediment Control measures as detailed in the Good Earth Matters Consulting Ltd document “Linton Quarry Pit Expansion – Erosion and Sediment Control Plan, November 2022, For Re-lodgement”
 - c. Recommended conditions of consent as detailed in Appendix A of the draft “s42A report of Kerry Pearce – Erosion and Sediment Control.”
 - d. Temporary or non-temporary nature of the proposed works.

D. PRIMARY DATA RELIED ON

9. The following documents, data and information have been relied on in this expert conference:
 - a. Resource consent application document “Linton Quarry Expansion Resource Consent Application and Assessment of Environmental Effects for Joint Application to Palmerston North City Council and Horizons Regional Council November 2022 Hirock Limited FOR RE-LODGE MENT” prepared by Good Earth Matters Consulting Ltd and dated November 2022
 - b. “Linton Quarry Pit Expansion Erosion and Sediment Control Plan November 2022 Hirock Limited FOR RE-LODGE MENT” prepared by Good Earth Matters Consulting Ltd and dated November 2022 including Erosion and Sediment Control Overview Plan Drawing No. 76506.002-Rev A.
 - c. **Draft** Section 42A report by Kerry Pearce -Erosion and Sediment Control

E. AGREED ISSUES

10. Refer to Annexure A

F. DISAGREEMENT AND REASONS

11. Refer to Annexure A

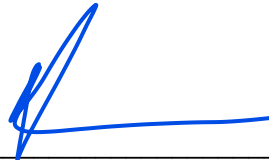
G. CHANGES FROM S42A REPORT

12. Refer to Annexure A

H. RESERVATIONS

13. It is understood that the matter of compliance limits for the quality of discharges from the sediment pond and site are to be addressed via the Joint Witness Statement and / or expert evidence from water quality experts. We have not addressed the question of appropriate compliance standards.

Date: 15 May 2023



Kerry Pearce



Annette Sweeney

ANNEXURE A

IN THE MATTER of applications by of the applications by Hirock Limited to the Palmerston North City Council (LU 6962) and the Manawatū -Whanganui Regional Council (APP-2022203991.00) for resource consents associated with the expansion and operation of an existing quarry at 167-257 Kendalls Line, Palmerston North.

Expert conferencing – Erosion and Sediment Control

Participants: Kerry Pearce (KP), Annette Sweeney (AS)

No	Topic/Issue	Statements	Agreed position	Disagreements and reasons	Change from s42A report
1	Adequacy of existing site erosion and sediment control measures	The current washwater and settlement pond systems implemented on site have been in operation for several years and are considered to comprise rudimentary ESC devices that do not meet current best practice or relevant guideline standards.	Agreed	None	None
2	Proposed Erosion and Sediment Control measures	The proposed Erosion and Sediment Control measures are as detailed in the Erosion and Sediment Control Plan prepared by Good Earth Matters Consulting Ltd, dated November 2022 (issue: Draft for Re-lodgement). This document details how the site erosion and sediment control measures will be upgraded to generally comply with current best practice and the Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021) requirements with the exception that it does not contain a Chemical Treatment Management Plan. A final ESCP including a Chemical Treatment Management Plan and Dewatering Management Plan which complies with	Agreed	None	None

		the GWRC guidelines is recommended as a condition of consent.			
3	Recommended conditions of consent as detailed in Appendix A of the draft "s42A report of Kerry Pearce – Erosion and Sediment Control."	<p>A suite of recommended conditions was provided with the draft s42A report. These are considered to be appropriate and adequate for ensuring the site's erosion and sediment control measures are upgraded to meet the current best practice guidelines (as per the GWRC guidelines adopted by Horizons Regional Council as per advice note to the One Plan Rule 13-2) subject to the following amendments:</p> <ul style="list-style-type: none"> • Addition of a condition specifying a timeframe (3 months) by which the existing ESC measures are required to be upgraded. • Amendment to conditions specifying actions required prior to commencement of activities authorised given that the site is an existing operational site with ongoing activities. Conditions to be amended to require actions to be undertaken within specified timeframe of commencement of consent. • Amendment of discharge compliance limits to reflect the proposed flocculant to be used. The draft conditions propose an aluminium standard. The applicant has advised they will use CAS 26062-79-3 which is not an aluminium flocculant. The appropriate parameter for which a compliance limit may be set is chloride. It is understood that the recommended compliance limit, if any, is to be addressed by the water quality experts. 	Agreed	None	Recommended conditions of consent to be amended as per Annexure B of this Joint Witness Statement

		<ul style="list-style-type: none"> • Removal of discharge compliance limits from the suite of erosion and sediment control conditions for these matters to be addressed by water quality experts. • Addition of a three yearly review condition to ensure consistency with best practice throughout term of consent. 			
4	Temporary or non-temporary nature of the proposed works	<p>The draft s42A report states that it does not identify any reasons to withhold consent for a number of reasons including “the temporary nature of the proposed works”. The applicant has sought a consent term of 10 years which may or may not be considered to be “temporary”.</p> <p>It is considered that the proposed measures as per the ESCP and recommended conditions, including the recommended three yearly review, are suitable for ensuring the effects of the activity on the receiving environment will be less than minor, and consistent with best practice, for the term of consent sought.</p>	Agreed	None	Recommended conditions of consent to be amended as per Annexure B of this Joint Witness Statement

ANNEXURE B
RECOMMENDED CONDITIONS OF CONSENT

IN THE MATTER of applications by of the applications by Hirock Limited to the Palmerston North City Council (LU 6962) and the Manawatū -Whanganui Regional Council (APP-2022203991.00) for resource consents associated with the expansion and operation of an existing quarry at 167-257 Kendalls Line, Palmerston North.

Expert conferencing – Erosion and Sediment Control

Participants: Kerry Pearce (KP), Annette Sweeney (AS)

Recommended Conditions
As per draft s42A report
and amended (as shown
in track changes) via Joint
Witness Statement

Earthworks Consent

The following conditions are recommended:

General Conditions

- X.1 The soil disturbance and construction related activities authorised by this resource consent must be undertaken in general accordance with the application for this resource consent, and all associated information submitted in relation to this application, except where otherwise required in the resource consent conditions below, titled:
- *"Linton Quarry Expansion Resource Consent Application and Assessment of Environmental Effects for Joint Application to Palmerston North City Council and Horizons Regional Council November 2022 Hirock Limited FOR RE-LODGEMENT"*. Prepared by Good Earth Matters Consulting Ltd and dated November 2022.
 - *"Linton Quarry Pit Expansion Erosion and Sediment Control Plan November 2022 Hirock Limited FOR RE-LODGEMENT"*. Prepared by Good Earth Matters Consulting Ltd and dated November 2022, including the following plans:
 - Erosion and Sediment Control Overview Plan. Drawing Number 76506.002 Rev A.

except where otherwise required in the resource consent conditions below in which case this higher standard must apply.

- X.2 The consent holder must be responsible for all contracted operations related to the exercise of this resource consent; and must ensure contractors are made aware of the conditions of this resource consent and ensure compliance with those conditions.
- X.3 A copy of this consent must be kept onsite at all times that physical works authorised by this resource consent are being undertaken and must be produced without unreasonable delay upon request from a servant or agent of the Manawatu-Whanganui Regional Council.

X.3a The consent holder must, no later than 3 months from the commencement of consent, install the ESCP measures as per those proposed in documents listed in Condition X.1 as modified by the plans required under Condition X.7, X.8 and X.12.

Pre-Start Requirements

- X.4 The consent holder must inform the Manawatu-Whanganui Regional Council in writing at least 5 working days prior to the commencement of construction of the ESCP measures required under Condition X.3a, activities of the start date of the works authorised by this resource consent.
- X.5 ~~Prior to activities commencing as authorised by this resource consent,~~ Within 10 working

days of commencement of consent, the consent holder must appoint a representative(s) who must be the Manawatu-Whanganui Regional Council's principal contact person(s) in regard to matters relating to this resource consent. The consent holder must inform the Manawatu-Whanganui Regional Council of the representative's name and how they can be contacted, ~~prior to this resource consent being exercised~~. Should that person(s) change during the term of this resource consent, the consent holder must immediately inform the Manawatu-Whanganui Regional Council and must also give written notice to the Manawatu-Whanganui Regional Council of the new representatives' name and how they can be contacted.

- X.6 The consent holder must arrange and conduct a pre-construction site meeting for the works required under Condition X.3a and invite, with a minimum of 5 working days' notice, the Manawatu-Whanganui Regional Council, the site representative(s) nominated under condition X.5 of this consent, the contractor, and any other party representing the consent holder prior to any work authorised by this consent commencing on site.

The following information must be made available at the pre-start meeting:

- Timeframes for key stages of the works authorised under this consent
- Resource consent conditions
- Finalised Erosion and Sediment Control Plan
- Chemical Treatment Management Plan
- Dewatering Management Plan

An ~~pre-start annual review~~ meeting, to be conducted in the same manner as the pre-construction site meeting, must be held prior to the commencement of the earthworks activity once per year, in each period between October 1 and April 30 that this consent is exercised.

Advice Note: *In the case that any of the invited parties, other than the site representative does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirement is met.*

- X.7 Prior to the commencement of works required under Condition X.3a, earthworks authorised by this consent, a Finalised Erosion and Sediment Control Management Plan (ESCP) must be prepared in accordance with *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021)* (GWRC Guidelines) and submitted to Council for certification. ~~No earthworks activity~~ Works required under Condition X.3a by this consent must not commence until the Council has certified that that the Finalised ESCP satisfactorily meets the requirements of GWRC Guidelines.

The Finalised Erosion and Sediment Control Plan required by Condition (X.7) must contain sufficient detail to address the following matters:

- specific design of erosion and sediment control measures in accordance with GWRC Guidelines
- supporting calculations and design drawings
- catchment boundaries and contour information
- details of construction methods
- timing and duration of construction and operation of control works (in relation to the staging and sequencing of earthworks)

- details relating to the management of exposed areas and stabilisation in accordance with GWRC Guidelines
- monitoring and maintenance requirements

X.8 Prior to the commencement of any pumping activity to the sediment retention structures and associated discharges from treatment devices on the subject site to the receiving environment, a Dewatering Management Plan must be prepared and submitted to Council. No pumping activity or discharges at the subject site is to commence until confirmation from Council is provided that the final management plan meets the required standards set out below.

The Dewatering Management Plan must contain sufficient detail to address the following matters:

- Details of how any water pumped from the quarry pit will not overload the sediment retention pond, including how pumping will be managed during rain events.
- Written records of all pumping operations, to include details of personnel managing the pumping operations.

Erosion and Sediment Control Plan

X.9 Any changes proposed to the ESCP provided as part of the application must be confirmed in writing by the consent holder and certified in writing by the Manawatu-Whanganui Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

X.10 The consent holder must ensure that a copy of the certified ESCP, including any certified amendments, is kept onsite and this copy is updated within 5 working days of any amendments being certified.

X.11 Prior to excavation of the quarry pit expansion area or within four months of commencement of consent whichever is the earliest, bulk earthworks commencing, a certificate signed by a suitably qualified and experienced person must be submitted to the Manawatu-Whanganui Regional Council, to certify that the erosion and sediment controls have been constructed in accordance with the erosion and sediment control plan.

Certified controls must include Sediment Retention Ponds, Dirty Water Diversions, and Clean Water Diversions. The certification for these subsequent measures must be supplied immediately upon completion of construction of those measures. Information supplied if applicable, must include:

- Contributing catchment area;
- Shape and volume of the structure (dimensions of structure);
- Position of inlets/outlets; and
- Stabilisation of the structure.

Advice Note: The format for certification is available on the Manawatu-Whanganui Regional Council website.

Flocculation

X.12 Prior to the commencement of works required under Condition X.3a, activities authorised by this consent, a Chemical Treatment Management Plan (CTMP) must be prepared by an

appropriately qualified and experienced person, and submitted to Council. No earthworks ~~in the quarry pit expansion area may activity authorised by this consent must~~ commence until written certification is provided by Council that the CTMP meets the requirements of GWRC Guidelines, and the measures referred to in that plan have been put in place.

The CTMP must include as a minimum:

- a. Specific design details of a chemical treatment system based on a rainfall activated methodology for any impoundment devices (Sediment Retention Ponds) and any other approved impoundment devices;
- b. Monitoring, maintenance (including post storm) and contingency programme (including a record sheet);
- c. Details of optimum dosage (including assumptions);
- d. Results of initial chemical treatment trial;
- e. A spill contingency plan; and
- f. Details of the person or bodies that will hold responsibility for long term operation and maintenance of the chemical treatment system and the organisational structure which will support this system.

Sediment control devices that discharge directly off site must be chemically treated throughout the duration of earthworks in accordance with the approved Chemical Treatment Management Plan.

X.13 Any changes proposed to the CTMP must be confirmed in writing by the consent holder and certified in writing by the Manawatu-Whanganui Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

~~X.14 Unless site specific analysis provides evidence to the contrary, as detailed in the CTMP, the consent holder must ensure that the soluble aluminium concentration of any discharge to the receiving environment must not exceed 0.2 grams per cubic metre.~~

~~X.15 Unless site specific analysis provides evidence to the contrary, as detailed in the CTMP, the consent holder must ensure that the pH of any discharge to the receiving environment must not be less than 5.5 or greater than 8.5 pH units.~~

Construction

X.16 The consent holder must ensure that sediment losses to natural water arising from the exercise of this resource consent are minimised during the duration of the works and during the term of this consent. In this regard, erosion and sediment control measures must be established and maintained in accordance with *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021)* and in accordance with Condition X.3a.

Commented [AS1]: Explanatory note: Experts (KP and AS) agree this condition can be deleted. Applicant has advised that the flocculant to be used is CAS 26062-79-3 [Poly(diallyldimethylammonium chloride) solution] and the active ingredient requiring monitoring is chloride, not aluminium.

It is understood that the Water Quality Experts are considering the compliance limit for chloride in their Joint Witness Statement.

It is recommended that this condition either be replaced with a condition requiring compliance with a chloride limit as determined via the water quality JWS and / or evidence and hearing determination OR that the compliance limit condition be included with water quality monitoring conditions.

Commented [AS2]: Explanatory note: Experts (KP and AS) agree to condition, but suggest that this condition is best placed to be included with the suite of conditions arising from water quality conferencing

X.17 All earthmoving machinery, pumps, generators and ancillary equipment must be operated in a manner, which ensures spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities must be carried out away from any water body, ephemeral water body, or overland flow path, such that any spillage can be contained so that it does not enter surface water.

X.18 The consent holder must ensure that, as far as practicable, all clean water run-off from stabilised surfaces including catchment areas above the site must be diverted away from the exposed areas via a stabilised system to prevent erosion. The consent holder must also ensure the outfall(s) of these systems are protected against erosion.

Discharges

X.19 Sediment retention devices must be designed and operated to achieve the following targets when discharging:

- i. a discharge clarity of greater than 100mm measured by black disc.

Should these targets not be achieved, opportunities to improve the management of the site must be implemented to achieve the targets, including:

- Consideration of additional Erosion and Sediment Control;
- Refinement of chemical treatment systems;
- Progressive stabilisation in sub-catchments;
- Increased maintenance of controls; and
- Amendments to methodologies and sequencing of works and refinement of controls as necessary.

X.20 The consent holder must ensure that all sediment laden run-off from the site is treated by sediment retention structures. These structures must be fully operational before bulk earthworks commence ([ie excavation of the quarry pit expansion area](#)) and must be maintained to perform at least at 80% of their operational capacity.

X.21 There must be no discharge of airborne particulate matter that is objectionable to the extent that it causes an adverse effect at or beyond the boundary of the subject property.

Commented [AS3]: Explanatory note: Experts (KP and AS) agree with this condition but suggest it may be better placed with conditions regarding dust management

Monitoring and Maintenance

X.22 The consent holder must ensure that all erosion and sediment control structures are inspected on a weekly basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls.

X.23 The consent holder must carry out monitoring and maintenance of erosion and sediment controls in accordance with the conditions of this resource consent and must maintain records detailing:

- a. The date, time and results of the monitoring undertaken; and
- b. The erosion and sediment controls that required maintenance; and
- c. The date and time when the maintenance was completed.

These records must be provided to the Manawatu-Whanganui Regional Council at all reasonable times and within 72 hours of a written request to do so.

Site Restoration

- X.24 The removal of any erosion and sediment control measure from any area where soil has been disturbed as a result of the exercise of this resource consent must only occur after ~~consultation and~~ written approval has been obtained from the Manawatu-Whanganui Regional Council acting in a technical certification capacity. In this respect, the main issues that will be considered by the Manawatu-Whanganui Regional Council include:
- The quality of the soil stabilisation and/or covering vegetation;
 - The quality of the water discharged from the rehabilitated land; and
 - The quality of the receiving water.
- X.25 The consent holder must ensure those areas of the site which have been completed must be progressively stabilised against erosion as soon as practically possible and within a period not exceeding 3 days after completion of any works authorised by this resource consent. Stabilisation must be undertaken by providing adequate measures (vegetative and/or structural) that will minimise sediment runoff and erosion and in accordance with *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021)*. The consent holder must monitor and maintain the site until vegetation is established to such an extent that it prevents erosion and prevents sediment from entering any surface water.
- X.26 Re-vegetation and/or stabilisation of all disturbed areas must be completed in accordance with the measures detailed in *Greater Wellington Regional Council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Wellington Region (February 2021)*.

Review

- X.27 The consent holder shall, by 30 June 2026, 30 June 2029 and 30 June 2031, undertake a review of the adequacy and effectiveness of the site erosion and sediment control measures which shall identify if there have been any changes in guidelines and best practice for erosion and sediment control measures since the last review; identify any changes required to the site erosion and sediment control measures to meet current best practice; and identify a timeframe for upgrading the site erosion and sediment control measures to meet best practice. The outcomes of the review shall be provided to the compliance manager, Horizons Regional Council, no later than one month following the completion of the review.

Commented [AS4]: Explanatory note: Experts (KP and AS) recommend this condition in order to ensure that the site erosion and sediment control measures remain consistent with best practice throughout the term of consent. A three yearly review is recommended.
The JWS contributing experts recommend that, if the overall suite of conditions include a regular reporting condition, this condition should be modified or incorporated into that condition / aligned with the reporting month as may be appropriate.