#### Legend:

Applicant's offered conditions (including those responding to RFI and consultation with iwi)

Amendments proposed by GDC s42a report

Amendments proposed by GDC and not agreed to by the applicant

Amendments proposed by WCRC s42a report

Amendments proposed by the applicant following s42a reports

Amendments proposed by the applicant following submitter evidence

Amendments discussed during planning caucusing and offered by the applicant 01/02/2024

Amendments following hearing of applicant experts made on 07/02/2024

Amendments made in reply

Amendment proposed by GDC 18/03/2024

GDC amendments from 18/02/2024 not agreed to

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#### **General Conditions for GDC and WCRC**

#### 1.0 General

- 1.1 The Consent Holder must carry out the mineral sand mining activities in general accordance with the application and associated documents dated April 2023, further information provided 26 July 2023, 5 September 2023, information provided and amendments made through the hearing and the Site Plan enclosed as Schedule 1 prepared by Tai Poutini Resources including the following management plans:

  The latest version/approved management plans should be listed here following draft management plans:
  - Noise Management Plan dated January 2024
  - Avian Management Plan prepared by Ecological Solutions Ltd dated January 2024
  - Wetland Construction and Riparian Planting Plan prepared by Ecological Solutions dated January 2024
  - Dust Management Plan prepared by TiGa Minerals and Metals Ltd dated January
     2024
  - Rehabilitation Management Plan prepared by Tiga Minerals and Metals Ltd dated
     January 2024
  - Water Management Plan and Monitoring and Mitigation Plan prepared by Komanawa Solutions Ltd dated January 2024

	Erosion & Sediment Control Plan prepared by Ridley Sunphy Environmental Ltd
	dated January 2024
	Landscape Mitigation Planting Plans prepared by Glasson Huxtable Landscape
	Architects dated January 2024
	<ul> <li>Transport Management Plan prepared by Novogroup dated January 2024</li> </ul>
	and the Site Plan enclosed as Schedule 1. and further information as amended by the
	following consent conditions, as amended by the following consent conditions.
1.2	The Consent Holder must ensure all key staff and contractors are made aware of, and have access to, the resource consent conditions prior to the commencement of mining. A copy of these documents must also be readily available on-site.
1.3	All actual and reasonable costs incurred by the Consent Authorities and Expert Advisory  Panel and independent environment auditor in monitoring, enforcement and administration of this resource consent must be met by the Consent Holder.
1.4	Expert Advisory Panel (EAP)
	<ul> <li>The West Coast Regional Council and Grey District Council shall appoint an EAP that will:         <ul> <li>Inspect and advice on the compliance of the activity with the conditions of this consent; and</li> </ul> </li> <li>Make recommendations to both Councils regarding any amendments proposed by the applicant to management plans required by this consent; and</li> <li>Comment on the suitability of any monitoring undertaken by the consent holder, its staff or contractors in relation to the conditions of this consent.</li> </ul>
	The EAP will consists of suitably qualified and experience experts in each aspect of the environment addressed by the consent conditions. The EAP must not have a conflict of interest with the consent holder.
	The EAP will produce a joint report assessing the activity's compliance with consent conditions and the suitability of monitoring practices. The report will be circulated to the applicant, local authorities, Department of Conservation, the Community Liaison Group, owners of the adjoining properties and shall be made publicly available. The report will also contain recommendations regarding compliance, monitoring and any necessary enforcement action that should be undertaken by the local authorities to ensure compliance with the consent conditions.
	The EAP will be produce their report 6 months after the activity is first commenced and thereafter annually unless there are any non-compliance with consent conditions in which case it will occur every 6 months until full compliance is achieved, after which reporting will occur annually.
	The EAP must periodically observe the monitoring required by this consent and ensure it is following best practice methodologies.
	The consent holder must pay the actual and reasonably costs of the EAP.
1.5	Accountable Person (Environmental Superintendent)

- a. Within 2 months of implementation of these consents, the Consent Holder must appoint an Accountable Person to be responsible for compliance of all conditions of consents. The Accountable Person must be based on-site for a minimum of 4 hours per day, for three days per week. The Accountable Person must:
  - I. Review, submit and ensure compliance with all management plans listed in the conditions of these consents;
  - II. Ensure there is another person who can provide cover in the event they are sick or unavailable, and to provide for succession ('Nominated Cover Person');
  - III. Be the point of contact between the Consent Holder, the Consent Authorities, the Community Liaison Group and the community generally, and pro-actively engage with these parties as required under these consents:
  - IV. Deliver on reporting requirements required by the conditions of these consents
- b. The Consent Authorities must be advised of the name and contact details of the Accountable Person and the Nominated Cover Person. In the event that the Accountable Person or Nominated Cover Person change, the Consent Authorities must be notified.
- c. A sign must be erected at the property boundary adjacent to the access road, which provides the name and contact details of the Accountable Person and Nominated Cover Person required to be appointed under sub-clause a.

#### 2.0 Notification

- 2.1 For monitoring purposes, the Consent Holder must notify the Consent Authorities of the following:
  - (a) the intended commencement date of activities at least 515 working days prior to commencement of works on-site; and
  - (b) the intended completion of final mine closure rehabilitation activities at least 15 working days prior to works ceasing on-site.

#### 3.0 Review of Conditions

- 3.1 Pursuant to Section 128(1) of the Act, the Consent Authorities may review any of the conditions of these consents by serving notice on the Consent Holder within a period of 60 working days, commencing on each anniversary of the date of commencement of these consents for any of the following purposes:
  - a) To deal with any unanticipated adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, including any material elevation of noise levels associated with the mining or processing operation, including for extended periods of time, which was not anticipated by noise modelling informing the resource consent conditions.
  - b) To assess the appropriateness of imposed monitoring parameters, monitoring regimes and monitoring frequencies and to alter these accordingly.
  - c) To ensure that any management plan required by these conditions gives effect to conditions of these consents.
  - d) If new information becomes available during the exercise of the consent such that it is necessary to apply more appropriate conditions. if the information made available to the consent authority by the applicant for the consent for the

purposes of the application contained inaccuracies which materially influenced the decision made on the application and the effects of the exercise of the consent are such that it is necessary to apply more appropriate conditions.

if the information made available to the consent authority by the applicant for the consent for the purposes of the application contained inaccuracies which materially influenced the decision made on the application and the effects of the exercise of the consent are such that it is necessary to apply more appropriate conditions.

#### 4.0 Bond Conditions

4.1 The Consent Holder must provide and maintain in favour of the Consent Authority (the West Coast Regional Council and the Grey District Council [jointly for their respective interests]) a bond or bonds to secure compliance by the Consent Holder with all the conditions of these consents, including the completion of all final mine closure activities required by these consents and any activities in the opinion of the consent authority to avoid, remedy or mitigate any adverse effects on the environment arising as a result of the exercise of these consents.

Advice Note: The Consent Holder remains liable under the Resource Management Act 1991 (or its successor) for any breach of these consents which occurs before expiry of these consents and which become apparent during or after the expiry of the relevant consent

- 4.2 The payment of the bond quantum by the Consent Holder, as required by Condition 4.4 must either be:
  - a) A bond in favour of the Consent Authority for the guarantee sum in a form and executed by a surety acceptable to the Consent Authority; or
  - b) A cash bond deposited with and held in a bank account by the Consent Authority
- 4.3 Where a bond is guaranteed in accordance with Condition 4.2 a), the guarantor must bind itself to pay up to the bond quantum for the carrying out and completion of all obligations of the Consent Holder under the bond.
- 4.4 The bond (as set at any time under Condition 4.1) must be held or remain in full force and effect throughout the term of these consents and until all conditions under these consents have been performed unless otherwise agreed by the Consent Authority.
- 4.5 The amount of the bond must be \$160,000.00 (one hundred and sixty thousand dollars).

  The bond quantum must shall be:
  - \$160,000.00 for reinstatement of the mining void; and
  - A sum to be determined by the average of two quotes provided to the Consent Authorities by the Consent Holder for the removal of the processing plant building and ancillary buildings and structures within the processing plant area shown in Schedule 2 and reinstatement of this area to pasture.

The method for arriving at the bond quantum does not limit the scope of the bond, which is set by Condition 4.1.

Prior to commencement of these consents, the Consent Holder shall provide the Consent Authorities with a report which recommends the amount of the first bond quantum in accordance with Condition 4.1. This report shall be reviewed by a suitably qualified

	specialist acceptable to the Consent Authorities, who shall determine the quantum of the bond having regard to the Annual Work Plan, the purpose for which the bond is taken (under Condition 4.1) and probabilistic calculations using the Monte Carlo simulation technique. Thereafter, the same specialist, or an alternate specialist acceptable to the Consent Authorities, shall review and prepare a report for the parties on the bond quantum at yearly intervals or such other intervals as agreed with the Consent Authorities based on the same methodology, but using the Annual Work Plan for the coming twelve months. If the reviewed bond quantum is higher than the current bond quantum, then the bond quantum shall be adjusted accordingly within 30 days of the parties receiving the report. Notification of the quantum of the bond under this condition shall be in writing by the Consent Authorities to the Consent Holder.
4.6	Should the Consent Holder not agree with the bond quantum determined in accordance with Condition 4.5, then the matter shall be referred to arbitration in accordance with the provisions of the Arbitration Act 1996. Arbitration shall be commenced by written notice ("notice of arbitration") by the Consent Holder to the Consent Authorities advising that the amount of the bond is disputed, such notice to be given within 14 days of the Consent Holder receiving the report referred to in Condition 4.5. If the parties cannot agree upon an arbitrator within 7 days of the notice of arbitration, then an arbitrator shall be appointed by the President of the Institution of Professional Engineers of New Zealand. Such arbitrator shall give an award in writing to the parties within 30 days after his or her appointment (the "date of arbitration decision"); unless the parties agree that the date of arbitration decision shall be extended. The Consent Holder shall bear the full and reasonable costs of the parties in connection with this arbitration. In all other respects, the provisions of the Arbitration Act 1996 shall apply. Pending the outcome of that arbitration, the current bond shall continue in force. The bond quantum shall be adjusted in
4.6	The provisions of Section 109 of the Resource Management Act 1991 must shall apply to any bond, or bonds, required pursuant to the above and must shall not be limited by the details of the bond instrument.
4.7	The amount of the bond may be inflation adjusted annually, if requested by the Consent Authority, by the movement of the CPI relative to the CPI at the date when the bond is first provided.
4.8	The Consent Holder must will-not exercise or must cease exercising these consents:  a) Until the bond required by Condition 4.1 has been fully executed by the Consent Holder and guarantor, or has been deposited with the Consent Authority, or  b) In respect of any inflation adjusted bond referred to in Condition 4.6, after 30 working days have expired from the date the Consent Holder was notified of the terms of the inflation adjusted bond by the Consent Authority unless the inflation adjusted bond has been executed with the Consent Authority by the Consent Holder and guarantor, or has been deposited with the Consent Authority; or
	c) In respect of any bond sum changed or reviewed pursuant to Sections 127 or 128 of the Act, after thirty 30 working days have expired from the date the

	Consent Holder was notified of the decision of the changed or reviewed bond
	by the Consent Authority unless the changed or reviewed bond has been
	executed with the Consent Authority by the Consent Holder and guarantor, or
	has been deposited with the Consent Authority, or
	d) If, during the term of these consents, the whole or any part of the bond is
	required to be used for the carrying out and completion of all obligations of
	the Consent Holder under the bond, unless the full bond has been executed
	with the Consent Authority by the Consent Holder and guarantor, or has been
	deposited with the Consent Authority.
4.9	The Consent Holder must complete such work requested in respect of which any bond or deposit is held, within the time period nominated by the Consent Authority's written request.
4.10	If the consents are transferred in part or whole to another party or person, the bond must continue until any outstanding work at the date of transfer is completed to ensure
	compliance with the conditions of these consents, unless the Consent Authority are
	satisfied adequate provisions have been made to transfer the liability to the new Consent
	Holder.
4.11	In the event of any such transfer of the consents, the Consent Holder must ensure that the
	transfer provides a replacement bond to the Consent Authority on the terms required by the Bond Conditions.
4.13	The bond shall provide that the Consent Holder remains liable under the Resource
	Management Act 1991 (or its successor) for any breach of these consents which occurs
	before expiry of these consents and which become apparent during or after the expiry of the relevant consent
4.14	The Consent Holder must shall meet the costs of providing any bond, or bonds, including
7,17	the costs of the bond and any substitute bond.
4.15	The Consent Authority must shall release the bond upon the closure of the mine and if all conditions of consent have been complied with to the satisfaction of the Consent
	Authority.
5.0 Ann	ual Work Programme
5.1	At least 20 working days prior to mining activities commencing and thereafter on or before
	the anniversary date of the mining activities commencing <del>commencement of these</del>
	consents, the Consent Holder must submit a programme of work ("Annual Work
	Programme") for certification by the Consent Authorities detailing:  o The proposed works to be carried out over the next 12 months including:
	Equipment to be used;
	<ul> <li>Equipment to be used,</li> <li>Areas of topsoil and overburden stripping and stockpile locations;</li> </ul>
	New areas of land disturbance that will be mined;
	Access tracks;
	- ACCESS LIACKS,

- Drill/prospecting sites and other tracks to be constructed; and
- Any other site works within the consent area.
- The approximate open volume of the working pit at the start of the year including depth of excavations and the area of the working pit.
- The progressive rehabilitation works to be carried out over the next 12 months including:
  - Areas of unrestored land (i.e. all land not finally topsoiled and revegetated) at the beginning of the new year;
  - The area that will be fully rehabilitated during the forthcoming year;
  - Maximum slope angles, bench heights and widths of recontoured ground, if applicable; and
  - Rehabilitation method and technique including replacement of topsoil and vegetation cover.
- Description of measures to prevent adverse effects on natural waterbodies, including drainage works within the consent area, and the collection and treatment of site run-off before discharge to land.
- Measures that must be adopted to ensure soil conservation and slope stability are controlled;
- A description and analysis of any unexpected adverse effects that have arisen as a result of activities within the last 12 months, and the steps taken to address the adverse effect.
- 5.2 The following plans, reports and results of monitoring must also be submitted as part of the Annual Work Programme or provided to the EAP upon request:
  - A detailed plan or aerial photograph showing:
    - The open working area at the start of the year;
    - Proposed mine path for the forthcoming year including haul and access roads;
    - Rehabilitated ground behind the open pit area;
    - Location of existing and intended topsoil or overburden dumps and their dimensions;
    - Location of natural waterbodies;
    - Location of present and intended drainage works and settling ponds; and
    - Any other site works within the consent area.
  - A Site Specific Erosion and Sediment Control Plan in accordance with condition 23.0.

- Results of <u>any previous</u> surface water quality, flow and water level monitoring from the previous 12 months from the previous 12 months in the form of an <u>Annual</u> Annual Hydrological and Water Quality Report required by condition 26.7.
- Any proposed updates to Management Plans submitted in accordance with the respective conditions of consent.
- Results of any previous dust monitoring from the previous 12 months required by Condition 28.5 for the previous 12 months.
- o A geotechnical report which addresses the potential geotechnical hazards for the following 12 months, and provides recommended mitigations where necessary to address natural hazards such as seismic activity, ground instability and inundation. The geotechnical report should include monitoring of pit wall performance address how monitoring of pit wall stability in panels 1.5 to confirm the geometry, setback and results of stability analysis. Monitoring may include in-ground inclinometers to measure slope deformation and piezometers to measure groundwater response. The ground investigations must has informed any recommended changes to pit geometry to address identified risks for panels 6.10. The geotechnical report shall include any recommendations for environmental remediation and staff training, in the unlikely event of pit wall failure.
- The Consent Holder must provide the Consent Authorities with any further information, which the Consent Authorities may reasonably request after considering any Annual Work Programme. This information must be provided in a timely manner as required by the Consent Authorities.

#### **6.0 Management Plans**

- 6.1 At least 20 working days prior to undertaking any activities authorised by these consents, the Consent Holder must shall-submit the following management plans to the Consent Authorities for certification:
  - Noise Management Plan
  - Avian Management Plan
  - Wetland Construction and Riparian Planting Plan
  - Dust Management Plan
  - Rehabilitation Management Plan
  - Water Management Plan and Monitoring and Mitigation Plan
  - Erosion & Sediment Control Plan
  - Landscape Mitigation Planting Plans
  - Transport Management Plan

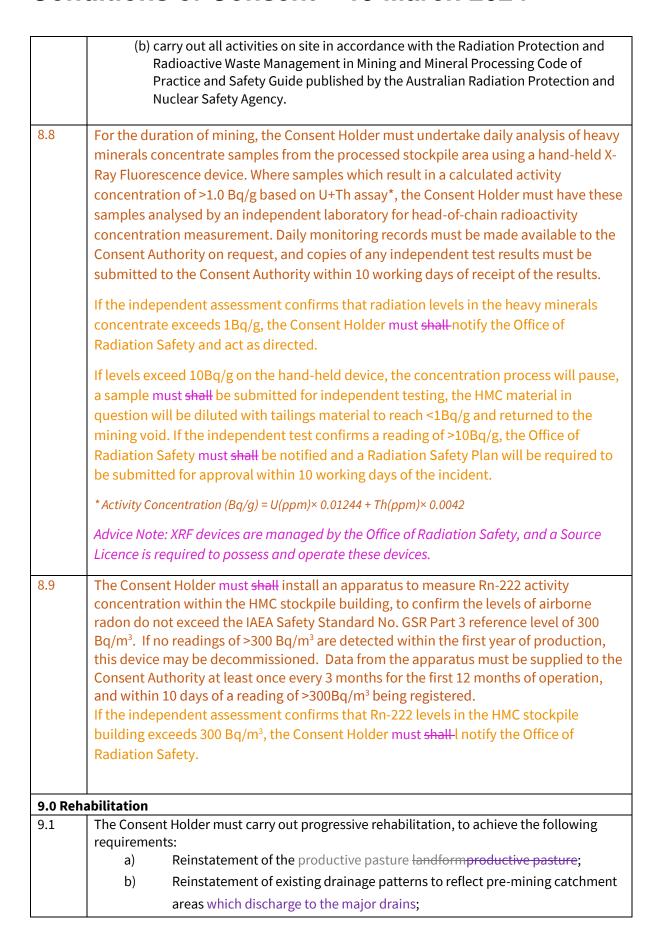
	Lighting Management Plan
	(collectively Management Plans)
6.2	The purpose of the Management Plans is to implement the relevant conditions of this consent. All Management Plans must be consistent will the conditions of this resource
	consent, and include (where relevant):
	a) The purpose/objective of the plan;
	b) Reference to the relevant conditions of this consent the management plan
	implements;
	c) How each of the relevant conditions have been given effect to;
	d) Identification of procedures for implementing the relevant plan;
	e) Audit check lists;
	f) Monitoring programmes and/or protocols;
	g) Feedback mechanisms for adaptive management, including circumstances in
	which a material change to the management plan would be required;
	h) An organisational chart showing staff and contractor positions and responsibilities for plan implementation;
	i) Relevant training and induction procedures and schedules;
	j) Reporting procedures and format for providing the results of any monitoring
	or surveying required by the Management Plans.
	Where plans require the input of an appropriately qualified professional, the Consent
	Authority may engage an appropriately qualified person to peer review the plans as part of
	the certification process.
6.2	All Management Plans must be consistent with the conditions of this resource consent, and
	include (where relevant):
	a) The purpose/objective of the plan;
	<ul><li>b) Reference to the relevant conditions;</li><li>c) How each of the relevant conditions have been given effect to;</li></ul>
	d) Identification of procedures for implementing the relevant plan;
	e) Audit check lists;
	f) Monitoring programmes and/or protocols;
	g) Feedback mechanisms for adaptive management, including circumstances in
	which a material change to the management plan would be required;
	h) An organisational chart showing staff and contractor positions and
	responsibilities for plan implementation;
	i) Relevant training and induction procedures and schedules;
	j) Reporting procedures and format for providing the results of any monitoring
	or surveying required by the Management Plans.
	Where plans require the input of an appropriately qualified professional, the Consent Authority may engage an appropriately qualified person to peer review the plans as part of
	the certification process.
6.3	Site activities must not commence until the management plans required in condition 6.1
0.0	have been certified by the Consent Authorities.
6.4	If the Consent Holder has not received a response from the Consent Authorities within 20
	working days one month of the date of submission of the management plans under
	Condition 6.1, the management plans must be deemed certified. If the response from the
	Consent Authorities is that they are not able to certify the management plans, the Consent
	Holder must consider any reasons and recommendations provided by the Consent
	Authorities, amend the management plans accordingly, and resubmit the management
	plans to the Consent Authorities.

6.4	If the Consent Holder has not received a response from the Consent Authorities within one month of the date of submission of the management plans under Condition 6.1, the management plans must be deemed certified. If the response from the Consent Authorities is that they are not able to certify the management plans, the Consent Holder must consider any reasons and recommendations provided by the Consent Authorities, amend the management plans accordingly, and resubmit the management plans to the Consent Authorities.
6.3	The Consent Holder shall operate the site in accordance with the following certified
	management plans:  ● Noise Management Plan
	Avian Management Plan
	Wetland Construction and Riparian Planting Plan
	Dust Management Plan
	<ul> <li>Rehabilitation Management Plan</li> </ul>
	<ul> <li>Water Management Plan and Monitoring and Mitigation Plan</li> </ul>
	• Erosion & Sediment Control Plan
	Natural hazard management plan
	<ul> <li>Landscape Mitigation Planting Plans</li> </ul>
	<ul> <li>Transport Management Plan</li> </ul>
	(collectively Management Plans)
6.5	With the prior agreement of the relevant consent authority. Tthe The Consent Holder may amend the management plans at any time to take into account:  a) Any positive measure/s to ensure the stated objectives of the management
	plans are achieved; and
	b) Any changes required to further reduce the potential for adverse effects as a
	result of actions identified in the Annual Work Programme; and c) Any required actions identified as a result of monitoring to address a) and b)
	under these consents.
	under these consents.
	Where management plans require the input of an appropriately qualified person, any amendments to those management plans must also be undertaken by the appropriately qualified person, and the Consent Authority may engage an appropriately qualified person
	to peer review the amendments.
	Advice Note: Some management plans have ongoing annual review requirements which are
	required in order to avoid, remedy or mitigate effects. These specific review requirements
	are stipulated in the relevant conditions of this consent.
	Advice Note: Amendments to the Avian Management Plan may trigger the need for an
	updated Wildlife Act Authority.
6.6	Any amended Plans must be provided to the Consent Authorities within 20 working days of their review, for certification in accordance with Condition 6.1.

their review, for certification in accordance with Condition 6.1. The Consent Authority maengage an appropriately qualified person to peer review the amendments.  6.7		<del>-</del>
conditions for the respective Plans.  The Plans may only be amended in a way that is consistent with, and does not contravene, the conditions of this resource consent.  6.8 If the Consent Holder has not received a response from the Consent Authorities within on month of the date of submission of any reviewed management plan, the management plan must be deemed certified. If the response from the Consent Authorities is that they are not site to certify the management plan, the Consent Holder must consider any reasons and recommendations provided by the Consent Authorities, amend the management plan eccordingly, and resubmit the management plan to the Consent Authorities within the consent Holder has not received a response from the Consent Authorities within the site that they are not able to certify the management plan, the Consent Holder must consider any reasons and recommendations provided by the Consent Authorities, amend the management plan must be deemed certified. If the response from the Consent Authorities is that they are not able to certify the management plan, the Consent Holder must consider any reasons and recommendations provided by the Consent Authorities, amend the management plan accordingly, and resubmit the management plan to the Consent Authorities.  6.9 A copy of the latest version of the Plans must be kept on site at all times and all key personnel must be made aware of the contents of each Plan and their responsibilities under each Plan.  6.10 Subject to any other conditions of these consents, all activities must be undertaken in accordance with the latest version of the Plans.  7.1 The mine boundaries must be clearly marked on the ground before any earthworks take place, with a size 20 mestback from the size 3 method and 3 method and 3 method and 3 method 3		Any amended Plans must be provided to the Consent Authorities within 20 working days of their review, for certification in accordance with Condition 6.1. The Consent Authority may engage an appropriately qualified person to peer review the amendments.
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7.0 Method of Operations  The mine boundaries must be clearly marked on the ground before any earthworks take place, with a a 10020m setback from the site's northern property boundary, the coastal lagoon and any wetlands northern property boundary and Collins Creekand Collins Creekand a 100m setback from the coastal lagoon and any wetland, and any wetland, and colling Creek The extent of the wetlands within the site must be delineated by a suitably qualified and experienced ecologist at least 20 working days prior to the site boundary being marked to determine the location of the setback and the coastal lagoon edge of the planting required by condition 19.0. A map showing the extent of delineated wetlands must shall be provided to the Consent Authority, at least 10 days prior to the boundaries being marked.  Advice note: Condition 18.1 requires a setback of 100m from the edge of the coastal lagoon during the bird breeding season.  Advice note: Condition 18.1 requires a setback of 100m from the edge of the wetlands on the coastal lagoon including from the wetlands on the property that adjoins the site to the north during the bird breeding season.	6.9	personnel must be made aware of the contents of each Plan and their responsibilities
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		The mine boundaries must be clearly marked on the ground before any earthworks take place, within a 100 20m setback from the site's northern property boundary, the coastal agoon and any wetlands northern property boundary and Collins Creekand Collins Creek, and a 100m setback from the coastal lagoon and any wetland. and any wetland. and Collins Creek The extent of the wetlands within the site must be delineated by a suitably qualified and experienced ecologist at least 20 working days prior to the site boundary being marked to determine the location of the setback and the coastal lagoon edge of the planting required by condition 19.0. A map showing the extent of delineated wetlands must shall be provided to the Consent Authority, at least 10 days prior to the boundaries being marked.  Advice note: Condition 18.1 requires a setback of 100m from the edge of the coastal lagoon during the bird breeding season.  Advice note: Condition 18.1 requires a setback of 100m from the edge of the wetlands and the coastal lagoon including from the wetlands on the property that adjoins the site to
	7.2	

	Advice note: The disturbed area includes the mine pit, water management infrastructure,
	processing plant area, active rehabilitation areas and the access road.
7.3	The Consent Holder must strip soil material ahead of operations and stockpile it for progressive and final mine closure rehabilitation purposes. Stockpiled soil must be protected from erosion caused by water and wind as far as practicable.
7.4	The Consent Holder must not bury any topsoil or soil material suitable as a growing medium or remove it from the site.
7.5	Prior to mining in each of panels 1, 4-9, and 10, the consent holder must shall engage a geotechnical engineer to carry out ground investigations to confirm the ground conditions within the panel, and determine appropriate pit wall geometry to ensure pit wall stability. The geotechnical investigations informing the report must shall include monitoring of pit wall performance in earlier panels (where applicable), and involve the use of in ground inclinometers to measure slope deformation and piezometers to measure groundwater response.  The geotechnical report must shall identify any recommendations for staff training in remediation for a pit wall failure scenario.
	remediation for a pit wall failure scenario.  The Consent Holder must shall submit the geotechnical report to the Consent Authority at least 20 working days prior to commencing each panel, for certification that the ground conditions are suitable and pit wall stability will be achieved with required water management mitigation infrastructure in place, such that there is less than 0.5m of modelled displacement in an Ultimate Limit State event (1 in 100 year earthquake) within 20m of the pit crest.
7.6	When mining first occurs within 100m of the coastal lagoon, Rusty Pond and the northern boundary in each of panels 4-8 and 10, the Consent Holder must shall:  — Commence filling the mining void at the western pit wall within 6 weeks of commencing the panel, and  — Complete filling the mining void within 100m of the coastal lagoon within 8 weeks of commencing the panel.
7.6	<ul> <li>When mining first occurs within 100m of the coastal lagoon, Rusty Pond and the northern boundary in each of panels 4-8 and 10, the Consent Holder must shall:         <ul> <li>Commence filling the mining void at the western pit wall within 6 weeks of commencing the panel, and</li> <li>Complete filling the mining void within 100m of the coastal lagoon within 8 weeks of commencing the panel.</li> </ul> </li> </ul>
7.7	The consent holder must use mains supplied electricity to operate the processing plant once it is commissioned.  Advice note: During construction of the processing plant and mine infrastructure, on-site electricity generation via diesel powered generators may be required before a mains electric power supply is established.
8.0 Haz	ardous Substances
8.1	Refuelling, lubrication and mechanical repairs of equipment and storage of hazardous substances and dangerous goods must be undertaken in such a manner so as to ensure that spillages of hazardous substances or dangerous goods onto the land surface or into a waterbody do not occur, including that refuelling must not occur within 20 metres of a water body. Any accidental discharge of greater than 20 litres must be reported immediately to the Consent Authority along with details of the steps taken to remedy and/or mitigate the adverse effects of the discharge.

8.2	All contractors and/or operators transporting or storing more than 20 litres of fuel must carry spill kits to enable immediate action to remedy and/or mitigate the effects of hazardous substances discharges on-site.
8.3	A list of all hazardous substances and dangerous goods must be maintained on site at all times showing location of storage and use, in case of an emergency.
8.4	Diesel storage must <del>-shall</del> be limited to 40,000 litres, and must <del>-shall</del> be contained in a certified tank with full secondary containment.
	Advice note: hazardous substance storage is managed by the Hazardous Substances and New Organisms Act 2006, and must be certified under this legislation.
8.5	For the duration of mining, the Consent Holder must undertake quarterly systematic testing of the heavy minerals concentrate from within the active mining area to confirm that the concentrate remains below the acceptable level of radioactivity concentration limits as specified in Schedule 2 of the Radiation Safety Act 2016. Copies of the independent test results must be submitted to the Consent Authority within 10 working days of receipt of the results.
	Advice Note: If material meets the criteria in Schedule 2 of the Radiation Safety Act 2016, the extraction, processing and transport of heavy minerals concentrate will require a Source Licence under this Act, and may possibly require a radiation safety plan as per section 18 of the Act.
8.6	In the absence of any extant and current New Zealand Code of Practice for handling such naturally occurring radioactive materials, the Consent Holder must carry out all activities on site in accordance with the Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing Code of Practice and Safety Guide published by the Australian Radiation Protection and Nuclear Safety Agency.
	Advice Note: The Code of Practice within this consent condition requires that if radiation levels exceed 1Bq/g, the relevant authority must shall-be notified, which differs from state to state. In the New Zealand context, the relevant body to notify is the Office of Radiation Safety.
8.7	For the duration of mining, the Consent Holder must maintain radiation monitoring devices in the locations specified in the Dust Management Plan. Radiation monitoring devices must collect data continuously over three-month intervals prior to collection and delivery to an independent laboratory for testing. Data from the radiation monitoring devices must be collected and analysed once every three months. Copies of the independent test results must be submitted to the Consent Authority with 10 working days of receipt of the results.  If the radiation monitoring devices record radiation levels exceeding the equivalent of 1 mSv (millisievert) above background levels over 12 months (i.e., the sum of results from the past four device readings at each location minus background levels established prior to the activity commencing) as a result of the activity, then the Radiation Safety Act 2016 applies to the activity, and the Consent Holder must:  (a) inform and consult the Office of Radiation Safety, New Zealand Ministry of Health; and



- c) Ensure short and long term stability of the reinstated landform Ensure rehabilitated land is stabilised as quickly as possible; and
- d) Protect Canoe Creek, Canoe Creek Lagoon, Northern Drain, Collins Creek and surrounding wetlands from the effects of erosion and sediment generation. Protect Collins Creek, the northern boundary drain, surrounding wetlands and the coastal lagoon from the effects of erosion and sediment generation.

Advice Note: Stabilised means an area inherently resistant to erosion such as rock, or rendered resistant by the application of aggregate, geotextile, vegetation, mulch or an approved alternative. Where vegetation is to be used on a surface that is not otherwise resistant to erosion, the surface is considered stabilised once an 80% vegetation cover has been established.

- 9.2 At the completion of mining (final mine closure), the mine area must be fully rehabilitated, by reinstating the productive pasture in general accordance with the a Rehabilitation Plan prepared by TiGa Minerals and Metals Ltd dated April 2023. The objectives of the Rehabilitation Plan are:
  - a) To create a final landform with a similar contour and profile at final mine closure as that which existed prior to mining;
  - b) To establish vegetation cover on all areas disturbed by mining activity as per agreed final landform; and
  - c) To protect freshwater values associated with Collins Creek, Canoe Creek, Canoe Creek Lagoon, Northern Drain and surrounding wetlands.
  - d) To reinstate the primary pre-mining catchment areas for the Northern Boundary Drain and Collins Creek/Canoe Creek Lagoon so the contouring and surface drainage installed during mine rehabilitation does not increase the rate of groundwater drainage at the site.
  - e) To establish the wetland at the northern end in accordance with the Wetland and Riparian Planting Plan.

Advice Note: Final mine closure is the completion of all mining and progressive rehabilitation works and removal of buildings.

Advice Note: All Management Plans are required to adhere to the requirements of Condition 6.0.

- 9.3 The Rehabilitation Plan must shall include the following:
  - A programme of progressive rehabilitation of the pre-mining landform, adhering to maximum disturbed area limits.
  - The original and final mine closure topography.
  - Contour and stability of all post-mining landforms.
  - Establishment of pasture cover over all disturbed land.
  - Restoration of drainage discharge channels.
  - Protection of water and soils from the effects of erosion.
  - The achievement of water quality standards for water interacting with previously distributed sites/areas in the long term to protect aquatic values.
  - Removal of buildings, equipment, and structures; and

	Post-mining weed and pest control requirements.
9.4	If for any reason active mining ceases for more than 3 months, operational stockpiles must be removed and material returned to the mining area, and all disturbed areas must be rehabilitated as required by the conditions of these consents within 6 months from the date of the last mining activity.
10.0 Cd	omplaints and Non-Compliance
10.1	Upon receipt of any complaint, the Consent Holder must promptly investigate the complaint, take action to remedy or mitigate the cause of the complaint and inform the Consent Authorities within 48 hours of the report, of the details of the complaint and the action taken.
10.2	The Consent Holder must maintain a complaints register for all aspects of operations in relation to these consents. The register must be available to the Consent Authorities at all times and must:
	a) detail the date, time and type of complaint;
	b) cause of the complaint; and
	c) the action taken in response to the complaint.
10.3	Complaints which may infer non-compliance with the conditions of these consents, must be referred to the Consent Authorities within 48 hours of the report.
10.4	In the event of any breach of compliance of the conditions of these consents, within 5 working days of becoming aware of any breach the Consent Holder must provide written notification to the relevant Consent Authorities which explains the cause of the breach, and if the cause was within the control of the Consent Holder, steps which were taken to remedy the breach and steps which must be taken to prevent any further occurrence of the breach.
	Advice Note: This consent condition does not replace the compliance and enforcement responsibilities of the Consent Authorities.
11.0 C	ommunity Liaison Group
11.1	Within 90 working days of commencement of these consents, the Consent Holder must establish a Community Liaison Group (CLG). An invitation must be extended to_all landowners of neighbouring and adjacent properties, 45 representatives of the Barrytown community which must includes owners of Lots 2 and 3 DP 3375, RS 4884, and Lot 2 DP 3403 and a member of the Coast Road Resilience Group, landowners of adjacent properties, and the Department of Conservation, and and the West Coast Penguin Trust, Te Runanga o Ngati Waewae and the Barrytown School Board of Trustees, the West Coast Regional Council and the Grey District Council. The Consent Holder must ensure that members of the CLG are provided with the opportunity and facilities to meet at least once every three months for the first 12 months of mining operations, and thereafter as agreed with the CLG. Minutes of meetings held must shall be submitted to the Consent Authorities within 10 working days of each meeting.
	The Consent Holder must provide reasonable support for the CLG by covering the costs of the meeting venue and independent chair, organising meetings at a local venue, and inviting all members of the CLG at least 5 working days before the meeting is held.—The

consent holder must pay any community members of the CLG an hourly rate (set at the minimum wage x 1.5) for their time attending meetings and reading meeting agendas.

Advice Note: The CLG is not a decision making body, but an important forum for the dissemination of information from the Consent Holder to interested parties. It also provides the opportunity for meaningful engagement between the parties, and for the CLG to comment on consent compliance and provide recommended changes to operations, monitoring and adaptive management. Comments and recommendations from the CLG are to be given due consideration. In the event that it is not possible to establish or maintain a CLG through lack of interest or participation from the local community, then such failure to do so not be deemed a breach of these conditions. Due to the large number of participants, it is expected that only one representative of each party named in condition 11.1 will attend, in an effort to maintain the efficiency and effectiveness of the group.

- The purpose of the CLG is to provide an ongoing means of communication between the Consent Holder and the local community, both through regular meetings and informal communication between the members and the Consent Holder. Matters to be discussed may include, but are not limited to:
  - a) Any complaints recorded and actions taken in response to the complaints as required by Condition 10.2;
  - b) Any complaints or concerns raised with traffic safety i.e. driver behaviour;
  - c) Any matters of concern with respect to State Highway 6 that should be reported to the West Coast Regional Council Land Transport Committee or NZTA or Waka Kotahi;
  - d) Any proposed amendments to Management Plans;
  - e) The results of any surveys or monitoring undertaken in accordance with conditions of this consent.

#### **Grey District Council Conditions**

#### 12.0 Hours of Operation

The mining and any related activities including processing and transport activities shall not operate during the hours of darkness between the months of November and January (inclusive). For the purpose of this condition, hours of darkness are considered to be between 30 minutes after sunset to 30 minutes before sunrise. Outside these hours, the applicant must comply with the following hours of operation:

Mining Activities from 01 February to 310 October November – 0700-2200

Mining Activities from 01 December to 31 January – 0630-0930

Processing Plant Activities – 24 hours a day / 7 days a week

Heavy Mineral Concentrate Trucking Activities – 0500-2200, except between the hours of darkness for the period between July and December (inclusive).

Advice Note: In addition to condition 12.1, further restrictions on transport operations are contained in Condition 15.0 Transport, and further noise restrictions are contained in Condition 16.0 Noise.

<del>12.2</del>	Overburden and topsoil stripping activities and bund development shall not occur within
	the hours of darkness. For the purpose of this condition, hours of darkness are considered
	to be between 30 minutes after sunset to 30 minutes before sunrise.
12.1	Trucking, mining, overburden and topsoil stripping, bund development and any related
	activities must shall not operate during the hours of darkness or during daylight hours
	when weather conditions requires external artificial lighting. For the purpose of this
	condition, hours of darkness are considered to be between 30 minutes after sunset to 30
	minutes before sunrise.
	Advise Nets convice and consettings and
	Advice Note: sunrise and sunset times can be found here https://www.sunrise-and-
	sunset.com/en/sun/new-zealand/westport/2023/june
	Advice Note: In addition to condition 12.1, further restrictions on transport operations are contained in Condition 15.0 Transport, and further noise restrictions are contained in
	Condition 16.0 Noise.
12.2	Processing plant and maintenance activities within the processing plant area may operate
12.2	24 hours a day/7 days a week. Processing plant shifts must operate 0700-1900 and 1900-
	0700. Mining shifts must operate only during the hours of daylight.
12.3	Trucking activities must not occur on Sundays.
13.0 Bu	
13.1	Buildings associated with the mining activity must be constructed and located generally in
	accordance with the site plan titled "TiGa Consent Application" stamped as approved by
	Grey District Council and dated [insert date of stamp here] 22 March 2023 and prepared by
	Tai Poutini Professional Services Ltd (Schedule 1) Schedule 1 and the building plans
	included as Schedule 2.
13.2	The colours to be used for all buildings and structures must be recessive and non-reflective
	and have a light reflectance value (LRV) of less than 20%, including but not limited to
	Colorcote colours Mudstone (LRV 16%), Rivergum (18%), Permanent Green (LRV 10%) or
	Ironsand (9.5%).
13.3	The Consent Holder must remove all buildings with the exception of the Heavy Mineral
	Concentrate Storage Shed and reinstate the processing plant area to pasture before the
	completion of the term of consent.
13.4	The processing plant building must be constructed without windows, to avoid light spill
15.4	from the building.
14 0 Sit	e Access
14.1	At least 10 working days prior to the trucking of Heavy Mineral Concentrate from the site,
	the vehicle crossing for access to the site from State Highway 6 must shall be formed in
	accordance with the vehicle crossing layout plans submitted by the consent holder and
	labelled as "T1001: Barrytown Mine, TiGa Minerals and Metals Ltd, Indicative Access
	Arrangement" stamped as approved by Grey District Council and dated [insert date of
	stamp here] dated 09/03/2023 and attached as Schedule 3.
14.2	Prior to vehicle crossing formation works occurring, the consent holder must shall submit
	to the Grey District Council a copy of the Waka Kotahi NZ Transport Agency's approval to
	undertake works on the State Highway (as detailed in advice notes a - c).
	Advice Notes:
	a) It is a requirement of the Government Roading Powers Act 1989 that any person wanting to

carry out works on a state highway first gain the approval of Waka Kotahi NZ Transport Agency for the works and that a Corridor Access Request (CAR) is applied for and subsequently a Work Access Permit issued before any works commence. A CAR will be required for the vehicle crossing from the subject site to State Highway 6.

- b) Detailed design approval will be provided though the CAR process.
- c) A CAR is made online via www.beforeudig.co.nz and/or www.submitica.co.nz. The CAR needs to be submitted at least 15 working days before the planned start of works. A copy should also be sent to the Waka Kotahi NZ Transport Agency environmental planning team at environmentalplanning@nzta.govt.nz.

The Corridor Access Request will need to include:

- i. The detailed design for the vehicle crossing. In developing the detailed design, the consent holder will need to consult with the Waka Kotahi NZ Transport

  Agency, including the Regional Safety Engineer and Network Manager
  appointed state highway maintenance contractor for the West Coast (Fulton Hogan) and a Waka Kotahi Safety Engineer (Jodie Enright).
- ii. A Construction Traffic Management Plan that has attained approval from the Waka Kotahi NZ <u>Transport Agency Network Manager</u>. <del>appointed state highway maintenance contractor for the West Coast (Fulton Hogan)</del>
- iii. A design safety audit which has been prepared, processed and approved in accordance with Waka Kotahi guidelines for Road Safety Audit Procedures for Projects (https://www.nzta.govt.nz/assets/resources/road-safety-auditprocedures/docs/road-safetyaudit-procedures-tfm9.pdf)

#### 15.0 Transport

15.1 Truck movements to or from the site associated with removal of heavy mineral concentrate must only travel south of the site, to and from the South (towards Greymouth) of the site and must be limited to 50 per day and 5 per hour (both averaged over a one week period) between the hours of 0500-2200 and must only occur during the hours of daylight or during daylight hours when weather conditions requires head lights to be used.

For the purpose of this condition, hours of daylight are considered to be between 30 minutes before sunrise and 30 minutes after sunset.

Advice Note: For the purpose of the Transport conditions, a movement is defined as being a movement either to or from the site. A truck and trailer unit entering and leaving the site is therefore 2 movements.

Advice Note: Refer to Condition 12.0 for further restrictions on hours/days of operation.

15.2 Truck movements associated with removal of heavy mineral concentrate to and from the North (towards Westport) of the site must be limited to 50 per day and 5 per hour (both averaged over a one week period) between the period starting 30 minutes before sunrise and ending 30 minutes after sunset each day.

Advice Note: For the purposes of the Transport conditions, a movement is defined as being a movement either to or from the site. A truck and trailer unit entering and leaving the site is therefore 2 movements.

Advice Note: Sunrise and Sunset times will differ throughout the year, and are determined by sunrise and sunset times at Westport, which can be found at the following website: <a href="https://www.sunrise.and.sunset.com/en/sun/new-zealand/westport/2023/june">https://www.sunrise.and.sunset.com/en/sun/new-zealand/westport/2023/june</a>

15. <mark>2</mark>	Truck movements associated with the activity removal of heavy mineral concentrate must shall be limited to no more than 3 per hour between 0500 and 0700 each day so long as
	those hours are during the hours of daylight or during weather conditions that require
15.3	headlights to be used.  Advice Note: For the purpose of the Transport conditions, a movement is defined as being a movement either to or from the site. A truck and trailer unit entering and leaving the site is therefore 2 movements.  The Consent Holder must operate a transport service for mining and processing plant staff shift workers, and require all shift workers to use this transport service during the hours of darkness. For the purpose of this condition, hours of darkness are considered to be between 30 minutes after sunset to 30 minutes before sunrise. The transport service must
	provide for staff living both north and south of the site, by running separate passenger vehicles in each direction. If there are less than 5 staff who arrive at site from either direction on any given shift, a passenger transport service is not required, provided that all staff arriving from that direction arrive and leave in the same vehicle.
	At least 10 working days prior to mining commencing, the Consent Holder must confirm to the Consent Authority how many staff are on each shift, their direction of travel, and what vehicles are proposed to cater for these staff movements.
	Advice note: The purpose of this condition to is minimise the number of vehicles arriving at and leaving the site, especially during hours of darkness, to avoid transport associated effects on the Westland Petrel. Some flexibility in the configuration of these vehicles is required, because it is not possible to know where future staff will live, and how this may change. It is intended that the company will run 1-2 mini van vehicles in each direction per shift, as required to ensure no staff are arriving by private passenger vehicle for shift work.
15.4	Notwithstanding Condition 15.3, light vehicle movements must be limited to 140 light vehicles per day. and shall only occur during the hours of daylight  Advice Note: For the purpose of the Transport conditions, a movement is defined as being a movement either to or from the site. A truck and trailer unit entering and leaving the site is therefore 2 movements.
15.5	A record of light and heavy vehicle movements must shall be kept by the Consent Holder
15.5	and supplied to the Consent Authority on request.
15.6	Any signage adjacent to or directed towards State Highway 6 must comply with the Waka Kotahi NZ Transport Agency policy manual for Third Party Advertising Signs (2022) and the Grey District Plan rules.
	Advice note: Signage will not be permitted within the state highway corridor, unless approved by Waka Kotahi.
15.7	Truck movements associated with the activity associated with the removal of heavy mineral concentrate must shall not leave or arrive at the site between the hours of 0800-0900 08:30 0900 and 14:45-1600 15:00 15:30 each school day that the Barrytown Primary School bus is operating.
	Advice Note: For the purpose of the Transport conditions, a movement is defined as being a movement either to or from the site. A truck and trailer unit entering and leaving the site is therefore 2 movements.

	Advice note: School term dates can be found on the Ministry of Education's website, however exact dates each school operate will vary and should be confirmed with the Barrytown
	School directly.
15.8	Northbound trucks must communicate with other trucks within the HMC fleet prior to the passing bay immediately north of Nine Mile Creek, and must pull over and wait at the passing bay if there is a southbound truck approaching the tight road geometry section from Twelve Mile Bluff to the south side of Ten Mile Creek, and not progress further until the southbound truck has cleared the area.
15.9	The consent holder must conduct transport activities in general accordance a Transport
15.9	Management Plan. The objectives of the Transport Management Plan are: is is to ensure all vehicles drivers operating vehicles associated with the mining activity demonstrate considerate and safe driver behaviour to: of  - to ensure contribute to the safe and efficient operation of the road transport network between the Site and either the Port of Greymouth or the Port of Westport (as appropriate)
	- to avoid adverse effects on wildlife along the trucking route;
	- to-avoid adverse effects on pedestrian and cycle safety along the trucking route.  Advice Note: All Management Plans are required to adhere to the requirements of Condition 6.0.
15.10	The Transport Management Plan must <del>shall</del> include:
	<ul> <li>A method of reporting incidents (including accidents or near misses involving a cyclist or pedestrian) encounters with taiko and other wildlife) and road defects;</li> <li>A method of reporting crashes involving a vehicle associated with the activity and any other road user and road defects, to the Council and the relevant Road</li> </ul>
	<ul> <li>Controlling Authority (where this is not the Council);</li> <li>Hours of operation of various vehicle types to avoid adverse noise and traffic</li> </ul>
	safety effects as dictated in the conditions of consent;
	<ul> <li>Procedures to avoid heavy vehicles leaving or arriving at the site between the hours of 0800-0900 and 14:45-1600, including safe locations to wait on SH6 during these times, if required;</li> </ul>
	<ul> <li>A method for trucks to carry clear identification and a phone number for the Consent Holder or haulage company, for the purpose of enabling other road users to report driver behaviour to the Consent Holder. If the identification and phone number is for the haulage company, a process is required that reports any complaints back to the Consent Holder within 48 hours.</li> </ul>
	<ul> <li>A method for the Consent Holder to record, investigate and advise fleet drivers of any complaints received about driver behaviour, and to provide this record to the Consent Authority when requested.</li> </ul>
	<ul> <li>A description of "locations of care" where drivers will need to take additional care, i.e. areas of tight road geometry, areas of greater pedestrian and cyclist concentration, areas near schools.</li> </ul>
	<ul> <li>Methods to minimise amenity disturbance for residents i.e. locations where use of air brakes should be avoided, including the Cargill Road intersection.</li> </ul>
	<ul> <li>A method of real time communication within the trucking fleet to avoid trucks passing at areas of tight geometry, and to alert other fleet drivers to the presence of a cyclist, pedestrian or other emerging safety hazards to minimise risks to other road users.</li> </ul>
	<ul> <li>Staff induction procedures, including regular briefing (eg 'Toolbox Talks') of drivers regarding the requirements of the TMP, considerate and safe driving behaviour</li> </ul>

	<ul> <li>around pedestrians and cyclists, identified locations of care, being alert for tourist drivers, and any other pertinent requirements regarding driver behaviour.</li> <li>A requirement for truck drivers to read and agree to any aspects of the Transport Management Plan within their control as drivers.</li> <li>A requirement to regularly report to the West Coast Regional Land Transport Committee on any particular areas of concern with State Highway 6 (including those raised by the CLG);</li> <li>Procedures to notify drivers when alterations are made to the TMP have occurred.</li> </ul>
15.11	In the event that any vehicle associated with the activity is involved in a crash involving a fatality or serious injury, the Consent Holder must notify the Consent Authority and engage a suitably-independent qualified transport engineer to review the Transport Management Plan within 5 working days to identify any further mitigation measures that can be implemented to avoid similar incidents occurring again. The review and recommendations of the transport engineer must be provided to the Consent Authority within 10 working days of the incident occurring, and the management plan amendment process in Condition 6.0 must be followed.
	The activity must immediately stop following any traffic accident involving a vehicle associated with the activity that causes a fatality or serious injury and must not recommence until such time as the incident has been investigated by an independent traffic safety expert (appointed by Grey District Council) in consultation with the roading control authority and any recommendations to prevent a similar incident occurring are incorporated into the TMP.
15.12	The Consent Holder must review the Transport Management Plan once every 12 months, and within 5 working days of any near miss or wildlife incident, and communicate updates to staff. The review must be provided to the Consent Authority within 10 working days of the incident occurring, and the management plan amendment process in Condition 6.0 must be followed. If any vehicles associated with the activity are involved in an incident, the Consent Holder shall review the Transport Management Plan to determine what, if any, additional measures may need to be taken to avoid such incidents occurring in future.
15.13	The Consent Holder must ensure that GPS Monitoring Systems are installed on the trucks carrying Heavy Mineral Concentrate to facilitate the investigation of complaints about driver behaviour, near misses, wildlife encounters, accidents and compliance with 15.1, 15.2 15.5 and 15.7. Records must be supplied to the Council on request.
15.14	The consent holder shall pay the actual and reasonable costs of the consent authority to engage an independent traffic expert to conduct periodic annual monitoring of the mine's truck drivers to ensure they are complying with the Transport Management Plan.
<u>15.5</u>	At least 10 working days prior any truck movements associated with the activity occurring, the Consent Holder shall prepare an implement a signage and marking plan, in consultation with the Road Controlling Authority and in accordance with the Manual of traffic signs and markings (MOTSAM). The signage and markings must be installed in accordance with the approved plans. The signage and marking plan be prepared by a

suitably qualified person. It shall assess SH6 between the site and Greymouth and identify any locations where the safety of pedestrians and/or cyclists can be improved by providing static and/or active warning signage and/or road markings. The consent holder shall submit to the Consenting Authority a copy of the Waka Kotahi NZ Transport Agency's approval to undertake works on the State Highway (as detailed in advice notes) and certification that the works identified in the signage and markings plan have been completed to its satisfaction.

#### Advice Notes:

It is a requirement of the Government Roading Powers Act 1989 that any person wanting to carry out works on a state highway first gain the approval of Waka Kotahi NZ Transport Agency for the works and that a Corridor Access Request (CAR) is applied for and subsequently a Work Access Permit issued before any works commence. A CAR will be required for the vehicle crossing from the subject site to State Highway 6. Detailed design approval will be provided though the CAR process. A CAR is made online via www.beforeudig.co.nz and/or www.submitica.co.nz. The CAR needs to be submitted at least 15 working days before the planned start of works. A copy should also be sent to the Waka Kotahi NZ Transport Agency environmental planning team at environmentalplanning@nzta.govt.nz. The Corridor Access Request will need to include:

- the consent holder will need to consult with the Waka Kotahi NZ Transport
  Agency, including the Regional Safety Engineer and Network Manager appointed
  state highway maintenance contractor for the West Coast (Fulton Hogan) and a
  Waka Kotahi Safety Engineer (Jodie Enright).
- (ii) A Construction Traffic Management Plan that has attained approval from the Waka Kotahi NZ Transport Agency Network Manager. appointed state highway maintenance contractor for the West Coast (Fulton Hogan). (iii) A design safety audit which has been prepared, processed and approved in accordance with Waka Kotahi guidelines for Road Safety Audit Procedures for Projects (https://www.nzta.govt.nz/assets/resources/road-safety-audit-procedures-tfm9.pdf).

#### 16.0 Lighting

16.1 There shall be no exterior lighting.

There shall be no exterior artificial lighting on the site, including mobile lighting and rehicle lighting

Lighting must not exceed 2.0 lux spill (horizontal and vertical) of light onto any adjoining property, measured at any point more than 2m inside the boundary of the adjoining property or the closest window on the adjoining property whichever is the closest.

Lighting must not exceed 2.0 lux spill (horizontal and vertical) of light onto any adjoining property, measured at any point more than 2m inside the boundary of the adjoining property or the closest window on the adjoining property whichever is the closest. 16.2 Lighting must be designed in a manner which adheres to the Australian Government's National Light Pollution Guidelines for Wildlife January 2020 (or subsequent revision); including but not limited to: All fixed lighting must be directed downward, shielded to avoid light spill outside of permitted activity limits, operate primarily in the yellow orange spectrum, and be filtered to reduce blue and violet wavelengths; Lights must only illuminate the object or area intended; —Fixed lights must be mounted as close to the ground as practicable while still achieving site lighting requirements; External lighting must be minimised on the seaward side of buildings to minimise light spill toward the coast; external lighting must use the lowest intensity lighting possible, while ensuring compliance with workplace health and safety requirements. Lighting must be designed, installed and operated in a manner which adheres to the Australian Government's National Light Pollution Guidelines for Wildlife January <del>2020</del>2023 (or subsequent revision); including but not limited to: Utilising the Seabird Light Mitigation Toolbox in Appendix G – Seabirds (Schedule 4); All fixed lighting must be directed downward, shielded to avoid light spill outside of permitted activity limits, with a lighting temperature of no more than 2000Koperate primarily in the yellow orange spectrum, and be filtered to reduce blue and violet wavelengths; Lights must only illuminate the object or area intended; Fixed lights must be mounted as close to the ground as practicable while still achieving site lighting requirements; External lighting must be minimised on the seaward side of buildings to minimise light spill toward the coast; External lighting must use the lowest intensity lighting possible, while ensuring compliance with workplace health and safety requirements External lighting should be equipped with light minimising technology, including motion sensors and timers where practicable Any windows must have blackout blinds fitted to avoid any light spill from internal lighting within buildings, Where practicable, the consent holder should make efforts to ensure mobile lighting within the mine site adheres to the above principles, including dipping headlights of vehicles operating on site. 16.3 The consent holder must-manage lighting on the site in accordance with a Lighting Management Plan (LMP), which has been prepared by a suitably qualified ecologist in

consultation with a suitably qualified lighting professional, and provided to the Department of Conservation for comment prior to certification. The objectives of the LMP are: To ensure adverse effects of artificial lighting on wildlife (specifically tāiko) are To ensure fixed and mobile artificial lighting at the proposed mine is managed in accordance with best-practice guidelines1. To ensure ongoing use of the site and its environs by the birds which currently occur iii. in the area. Advice Note: All Management Plans are required to adhere to the requirements of Condition As a minimum, the LMP must include: 16.4 a) A description of the wildlife that may be present on or around the site that may be sensitive to lighting b) A description of the potential lighting effects on identified wildlife c) Specific lighting management actions to protect identified wildlife d) Reporting requirements to enable consent authorities to confirm compliance with associated consent conditions, and keep wildlife stakeholders informed e) Best practice lighting design principles to avoid lighting effects on wildlife f) A description of the proposed exterior and mobile lighting associated with the activity (including vehicle movements to and from the site) g) Auditing requirements to ensure that lighting is installed and operated appropriately 16.5 The Consent Holder must provide a detailed lighting plan to Grey District Council at least 20 working days prior to the commissioning of the processing plant, with an accompanying design statement, prepared by a suitably qualified lighting professional, confirming compliance with conditions 16.1 and 16.2. The Consent Holder must provide a detailed lighting plan to Grey District Council and the Department of Conservation at least 20 working days prior to the commissioning of the processing plant, with an accompanying design statement, prepared by a suitably qualified lighting professional, confirming compliance with conditions 16.1 and 16.2. If the Department of Conservation considers that for any reason the detailed lighting plan does not comply with Condition 16.2, the Consent Holder must consider any reasons and recommendations provided by the Department of Conservation, amend the detailed lighting plan accordingly, and resubmit the plan to the Grey District Council and the Department of Conservation. 16.6 Within 20 working days of the processing plant being commissioned, the Consent Holder must engage a suitably qualified lighting professional to carry out a lighting audit, to confirm that the lighting has been installed as per the detailed lighting plan required by Condition 16.3. The results and confirmation of compliance with conditions 16.1 and 16.2 must be submitted to the Consent Authority within 10 working days of receipt of the audit.

<sup>&</sup>lt;sup>1</sup> National Light Pollution Guidelines for Wildlife (Australian Government, 2023).

Within 20 working days of the processing plant being commissioned, the Consent Holder must engage a suitably qualified lighting professional to carry out a lighting audit, to confirm that the lighting has been installed as per the detailed lighting plan required by Condition 16.3. The results and confirmation of compliance with conditions 16.1 and 16.2 must be submitted to the Consent Authority and the Department of Conservation within 10 working days of receipt of the audit. If the lighting audit establishes compliance with conditions 16.1 and 16.2 is not achieved, 16.7 the Consent Holder must investigate and implement additional mitigation required to achieve compliance. The Consent Holder must submit a report to Consent Authority within 10 working days of the audit detailing the mitigation measures that will be implemented and must undertake a further compliance monitoring report within 10 working days of any mitigation measure being implemented to demonstrate the effectiveness of that mitigation. If the lighting audit establishes compliance with conditions 16.1 and 16.2 is not achieved, the Consent Holder must investigate and implement additional mitigation required to achieve compliance. The Consent Holder must submit a report to Consent Authority within 10 working days of the audit detailing the mitigation measures that will be implemented and must undertake a further compliance monitoring report within 10 working days of any mitigation measure being implemented to demonstrate the effectiveness of that mitigation. 17.0 Noise 17.1 The consent holder must shall ensure that all operational mining and processing activities on the site do not exceed the following noise limits at or within the notional boundary of any dwelling existing at the date consent is granted on any other site except 3261 Coast Road: Daytime (0700-2200): 55 dB L<sub>Aeq</sub>(15 min) Night-time (2200-0700): 45 dB  $L_{Aeq}$ (15 min) and 75 dB  $L_{AFmax}$ when measured and assessed in accordance with the latest New Zealand noise standards: NZS 6801:2008 "Acoustics - Measurement of environmental sound" and NZS 6802:2008 "Acoustics - Environmental Noise". 'Notional boundary' is defined as a line 20 metres from any side of a dwelling or the legal boundary where this is closer to the dwelling. 17.2 Construction activities must shall be conducted in accordance with NZS 6803: 1999 "Acoustics - Construction Noise" and must shall comply with the "typical duration" noise limits contained within Table 2 of that Standard. Advice Note: Construction activities include the formation of access roads, bunds, dams and final land contouring and planting, and the construction of the processing plant and load out area. For the avoidance of doubt, overburden stripping and topsoil removal associated with mining operations must shall not be considered construction activities. 17.3 The consent holder must shall prepare a Noise Management Plan (NMP) to control day-today noise emissions from the site. This NMP must be submitted to Council for approval for **certification** 10 working days prior to commencement of the proposed activity at the site. The Consent Holder must operate the site in general accordance with the Noise Management Plan (NMP) prepared by Marshall Day Acoustics dated April 2023. As a minimum, the NMP must shall include:

- a) The person responsible for implementing the NMP
- b) Applicable noise conditions relating to noise
- c) Training of staff relating to how to minimise noise and vibration
- d) Maintenance schedule for site access road surfaces to avoid excessive noise and vibration
- d)e)\_Reporting of defects in the carriageway of State Highway 6 that generate abnormal noise and vibration
- e)f) Activity risk analysis for noise generation
- g) Method for handling complaints.
- f<u>h</u>) Noise monitoring methodology, including frequency, duration, location.

Advice Note: All Management Plans are required to adhere to the requirements of Condition 6.0.

The consent holder must shall engage a suitability qualified and experienced independent person to undertake compliance noise monitoring within 30 days of mining and processing operations occurring and thereafter at 36-monthly intervals for the first 12 months of the mining operation for the first 12 months of the mining operation. Thereafter, compliance noise monitoring must shall be undertaken on an annual basis. Thereafter, compliance noise monitoring must shall be undertaken on an annual basis. unless agreed otherwise by the Environmental Planning Team Leader, Grey District Council.

Noise monitoring shall also be undertaken prior to the period 01 December to 31 January to confirm that the Mining Field Unit is able to comply with the night time noise limits if mining operations are proposed to occur between 0630 and 0700.

All noise monitoring must shall be made available submitted to Grey District Council within two weeks of completion of each monitoring visit.

If compliance is not achieved, the Consent Holder must investigate and implement additional mitigation required to achieve the noise limits as soon as practicable. The consent holder must submit a report to Council within 60 working days of the relevant monitoring report detailing the mitigation measures that will be implemented and must undertake a further compliance monitoring report within 10 working days of any mitigation measure being implemented to demonstrate the effectiveness of that mitigation.

If compliance with the night-time noise limits is not achieved, mining operation shall not commence before 0700 until suitable mitigation measures are implemented to achieve the night time noise limit.

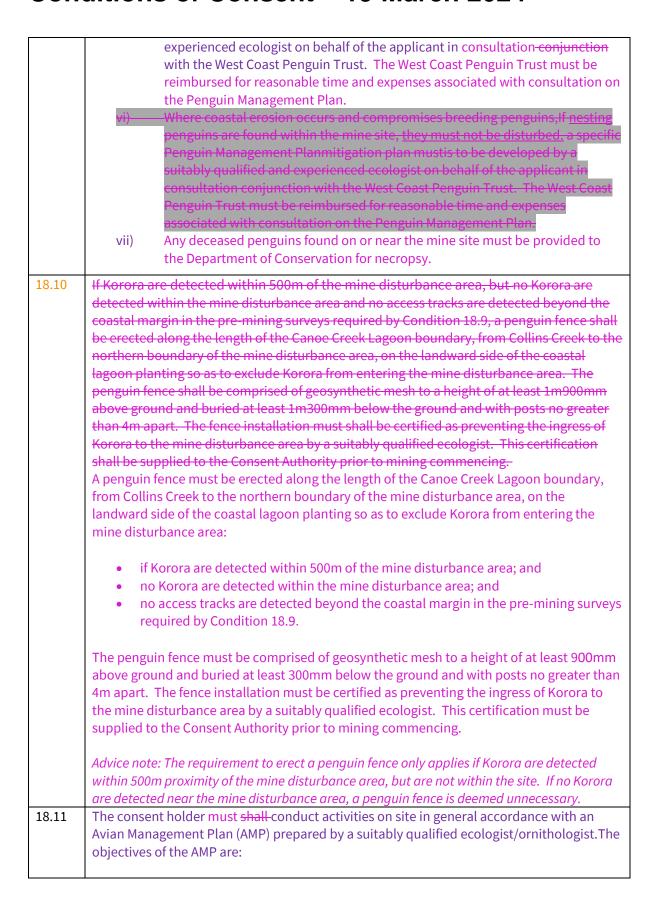
If compliance with the night-time noise limits is not achieved, mining operation shall not commence before 0700 until suitable mitigation measures are implemented to achieve the night-time noise limit.

17.5 Prior to mining activity occurring during the night-time period each year, the consent holder shall provide an assessment that the schedule of mining equipment, its operating locations and any mitigation required to comply with the applicable noise limits. The results of each assessment must be provided to Council at least 10 working days prior to 1 December each year and must be appended to the NMP.

NOTE: This condition does not apply if the activity is not consented to operate at night.

17.5	Mining operations must utilise the best practicable option to minimise noise at all times.  This includes replacement of worn parts, maintenance of mufflers, lubrication of moving machinery to avoid squeaks and squeals, and appropriate operation of all equipment.
17.6	Vehicles or equipment must not be fitted with tonal reversing alarms. Where reversing alarms are required, strobe light or broadband reversing alarms must be used.
18.0 Av	rian Management
18.1	Mining, topsoil and overburden stripping and rehabilitation activities must shall not take place within 100m of the site's northern boundary. Canoe Creek Lagoon Canoe Creek Lagoon (as delineated in Condition 7.1) or Rusty Pond any wetland between the months of August September and December each year to maintain separation from the lagoon during the peak bird breeding season.  December each year to maintain separation from the lagoon during the peak bird breeding season.
18.2	If a nest of a threatened or at risk bird species is detected within an area to be mined during the breeding detection surveys, the nest must shall be protected by establishing, physically marking and maintaining a 50m buffer between the nest and any works so as to minimise the risk of nest abandonment. All vehicles, machinery and people must will be excluded from the area and local pest control will be implemented until either the nest is abandoned or the any chicks fledge in accordance with the management set out in the Avian Management Plan (AMP). If a nest is abandoned, the AMP must be reviewed by a suitably qualified ecologist to investigate the reasons for abandonment and if there are any additional measures that should be undertaken to protect nests in future. Advice Note: Conditions relating to the AMP are Conditions 18.11-18.14.
18.3	Staff, contractors and visitors associated with the mining activity must-shall not be permitted to bring dogs to the site at any time, except for conservation purposes.
18.4	The Consent Holder must establish a ring of traps and/or bait stations targeting rats and must elids placed around the perimeter of the property and the coastal lagoon in accordance with the AMP. The network of traps must is to be installed prior to mining commencing and serviced as required.
18.5	The consent holder must deploy wildlife cameras around the coastal perimeter of the mine disturbance area and other suitable locations as required to monitor for Korora, and around the processing plant area and the access road to monitor for <i>Procellaria westlandica</i> (Westland Petrel) Taiko. The cameras must be equipped with motion sensors, and be installed by a suitably qualified ecologist. 10 cameras to detect Korora mustshall be placed at suitable locations along the coastline and set to record for at least every 10 nights every month, for at least 10 nights every month, with the location to be determined by the ecologist. 10 Cameras to detect Westland Petrel Taiko mustshall be installed around the processing plant and the length of the access road, operating during the hours of darkness each night, with the location to be determined by the ecologist. Imagery must be reviewed for wildlife interactions at least weekly by a suitably qualified ecologist by a qualitied and independent ecologist, retained for a minimum of 6 months, and be made available to the Consent Authority or the Department of Conservation on request.
18.6	Any interactions with wildlife recorded as a result of the monitoring requirements in the AMP including the wildlife cameras required by Condition 18.5, must-shall be reported to the Consent Authority and the Department of Conservation on a weekly basis from 01 November to 31 January each year, and on a monthly basis from 01 February to 31 October. Footage must be made available to the Department of Conservation and the consenting authority as set out in Condition 18.5.

18.7	If a Westland Petrel <del>Taiko</del> interaction is detected, the consent holder must follow the procedure set out in the AMP including contacting the Department of Conservation as soon as possible and transfer of any birds found alive to their care as soon as the Department can take them, which must include a review of the AMP and Lighting Management Plan by a suitably qualified ecologist ecologist in consultation with the Department of Conservation and a suitably qualified lighting professional to determine what additional measures can be taken to avoid any further interactions with Westland Petrel <del>Taiko</del> .  Advice note: An interaction is defined as the presence of a bird or birds within close proximity to the mining infrastructure, including buildings, vehicles and plant where they are or could be put at risk.
18.8	If two Westland Petrel <del>Taiko</del> interactions are detected within a four week period, all mining and processing activities during the hours of darkness must-shall cease until a further review of the AMP and Lighting Management Plan by a suitably qualified independent ecologist has been carried out, in consultation with the Department of Conservation and a suitably qualified lighting professional, to determine the possible causes and additional mitigation measures that can be employed to avoid further interactions with Westland Petrel <del>Taiko</del> . Mining and processing activities may only recommence following the completion of investigations and the implementation of further mitigation measures recommended by the ecologist.
	Advice note: Any amendment to the AMP will be required to comply with the certification process under Condition 6.0, and any Wildlife Act Authority requirements.
18.9	The Consent Holder must shall engage a suitably qualified expert to carry out annual penguin surveys of Pakiroa beach and the mine area using a certified conservation dog within 500m of the mining disturbance area to detect the presence of Korora. The first survey must shall be conducted within the first 12 months of the commencement date of the resource consent, and at least two annual surveys must be completed before mining commences.at least 20 working days prior to mining commencing. If penguins or burrows are detected the location must will be mapped and the following management actions are
	to apply:  i) If penguins are detected using the mining area to access other habitats, any existing access ways must are to be maintained and/or works affecting that accessway must are to be completed in the period April March – June (outside the breeding and moult period).
	<ul> <li>ii) Any potential penguin burrows identified mustwill be investigated, including use of a burrowscope, to determine whether Korora are using them.</li> <li>iii) Where any penguin burrows are compromised by mining (i.e., direct effects), replacement artificial burrows/nest boxes mustare to be installed at a rate of 2:1. Any additional nest boxes provided must are to be located within the vegetated coastal foreshore habitat associated with any identified</li> </ul>
	accessways.  iv) Where any penguin burrows are compromised by mining (i.e., direct effects), replacement artificial burrows/nest boxes mustare to be installed at a rate of 2:1. Any additional nest boxes provided must are to be located within the vegetated coastal foreshore habitat associated with any identified
	v) Where coastal erosion occurs and compromises breeding penguins, If penguins are found within the mine site, a specific Penguin Management Planmitigation plan mustis to be developed by a suitably qualified and



	<ul> <li>To ensure adverse effects on the threatened and at risk birds present in the vicinity of the site and any other threatened and at risk species detected by subsequent monitoring are avoided.</li> <li>To ensure significant adverse effects on the rushland, flaxland and other important bird habitats adjoining the mining site including Canoe Creek Lagoon, Rusty Pond and the coastal margin are avoided and all other adverse effects are avoided. remedied or mitigated during the breeding season and minimised at other times of the year during mining.</li> <li>To ensure safe ongoing use of the site and its environs by the birds which currently occur in the area.</li> </ul> Advice Note: All Management Plans are required to adhere to the requirements of Condition
	6.0.
	Advice Note: Threatened or at-risk bird species refers to the Conservation Status according to
18.12	the Department of Conservation's Threatened Classification System  The AMP must shall detail:
10.12	THE AIM HUST SHART WETAIL.
	<ul> <li>A description of the site and surrounding avian habitats</li> </ul>
	<ul> <li>A description of the threatened and at risk birds likely to be present in</li> </ul>
	these habitats and which species require specific management within the
	AMP
	<ul> <li>A description of the management and mitigation measures that are</li> </ul>
	required to be implemented to avoid effects on these species;
	<ul> <li>A procedure for managing and responding to Taiko or other wildlife being</li> </ul>
	found on the mine site;
	<ul> <li>A description of the monitoring requirements to assess the effectiveness of the AMP</li> </ul>
18.13	The AMP must be reviewed annually <del>and may be amended at any time</del> by the Consent
	Holder_ <del>with the agreement of the Grey District Cou</del> ncil. Any proposed amendments to the
	AMP must be submitted to Council for certification and must:
	o achieve the AMP's <del>purpose and objectives including</del> of avoiding effects on
	any threatened or at-risk indigenous bird species (including specifically
	the Westland Petrel <del>Tāiko</del> );
	o comply with the conditions of this resource consent; and
	<ul> <li>have been reviewed by an appropriately qualified and experienced ecologist/ornithologist;</li> </ul>
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	o have been provided in advance to Te Runanga o Ngati Waewae and the Buller/Kawatiri office of the Department of Conservation for comment
	(and feedback received collated and submitted with the amendments to
	be provided to Council).
	o follow the certification process set out in Condition 6.0.
	Advice note: any disturbance or relocation of avifauna may require a permit from the
	Department of Conservation under the Wildlife Act (1953).
18.14	The Consent Holder must engage a suitably qualified expert(s) to undertake continuous all
	monitoring of avian species from the commencement of consent until at least one year following the cassation of mining activities on this site. The monitoring must be carried
	following the cessation of mining activities on this site. The monitoring must be carried out in accordance with the monitoring requirements in the AMP.
	out in accordance with the monitoring requirements in the AMI.

An annual bird management report must shall be provided to Environmental Planning Team Leader Grey District Council, Te Runanga o Ngāti Waewae and the Buller/Kawatiri office of the Department of Conservation in Westport, the West Coast Penguin Trust, Paparoa Wildlife Trust, the Community Liaison Group and Waka Kotahi NZ Transport Agency Environment and Sustainability Team (via:environment@nzta.govt.nz), no later than 30 June each year which includes: site inspection summaries, record of presence of any at risk and threatened bird species, and the avoidance and mitigation measures undertaken on the Site. The report must shall-include the following matters:

- The timing and duration of any mining within 100m of the coastal lagoon vegetation and the SNA;
- o Results of seasonal bird surveys at the site;
- Timing of nest detection surveys and observations relating to nesting or other behaviours observed within the area to be mined;
- Efforts to deter any attempts at nesting within the area to be mined and the outcome of those efforts;
- Species attempting to nest within the area to be mined (including threatened and at risk species);
- Date of first nesting attempts (if any) for threatened and at risk species within the area to be mined;
- Number and location of nesting attempts by threatened and at risk species within the area to be mined;
- Species attempting to nest within the area to be mined (including threatened and at risk species);
- Date any predator control commenced, the location of traps and bait stations, the number of captures, the amount of bait consumed and any relevant observations;
- Outcome of individual nesting attempts by threatened and at risk species within the area to be mined;
- Results of annual kororā surveys on Pakiroa Beach, the implications for mine operations and any management actions undertaken;
- Number and location of any grounded tāiko Westland Petrel and any birdstāiko found dead on site;
- Management undertaken and the outcome for any grounded tāiko Westland Petrel collected;
- Number, dates and location of any vehicle strikes or near misses involving the Westland Petrel or Korora;
- o Autopsy outcomes for any dead tāiko Westland Petrel or Korora collected;
- The number, dates and location of any near misses with vehicles for any native species;
- The findings of any lighting audits undertaken during the year and steps taken to resolve any issues identified.
- A summary of any revisions made to this management plan and the reasons for the changes;
- The date and duration of any operational shut-downs;
- o The results of the guarterly walk-through surveys of birds using the lagoon area.

No overhead wiring is allowed as part of this activity

#### 19.0 Planting

- 19.1 As soon as practicable following the commencement date of this consent, and prior to the commencement of mining, the consent holder must shall construct bunds and complete planting and fencing of in accordance with the attached "Landscape Mitigation Planting Plans" prepared by Glasson Huxtable Landscape Architects dated January 2024April 2023 (Schedule 5); including:
  - (a) a 1.8m high, 13.0m wide permanent bund with planting along the bund's crest and eastern side, parallel to the State Highway for visual screening;
  - (b) a 6.0m wide planting strip with fencing adjacent to the coastal lagoon edge;
  - (c) a 10.0m wide band of planting along the open coastline with fencing in the south-west corner;
  - (d) planting of the western and northern edges of the Clean Water Facility, between the coastal lagoon and ponds, so far as is operationally feasible to enable the Clean Water Facility to operate and be maintained throughout the course of the mining activity;
  - (e) a minimum 3.0m wide strip of planting with fencing along the edge of each side of Collins Creek (except planting is only required on the true right side where riparian vegetation already exists on the true left side of the Creek in the mid section of the site);
  - (f) a 3.0m wide strip of planting with fencing along the southern bank of the northern drain;
  - (g) a planted strip along the north-eastern boundary of the site and adjacent to neighbouring properties at 3323 Coast Road.

For the avoidance of doubt, all planting must be fenced to exclude livestock from the planted areas. Temporary fencing may be erected around the planting in (d) for the duration of mining, and stock must be permanently excluded when the additional planting is undertaken under Condition 19.4.

As soon as practicable following the construction of the temporary stockpile near the processing plant, the consent holder must shall complete planting of the stockpile area as shown in the attached "Landscape Mitigation Planting Plans" prepared by Glasson Huxtable Landscape Architects dated January 2024April 2023 (Schedule 5).

Advice Note: Planting may not be able to be undertaken during dry periods of the year, and as soon as practicable may be the start of the planting season following the stockpile construction. Disturbed area and erosion and sediment control practices will require this area to be stabilised if not planted immediately.

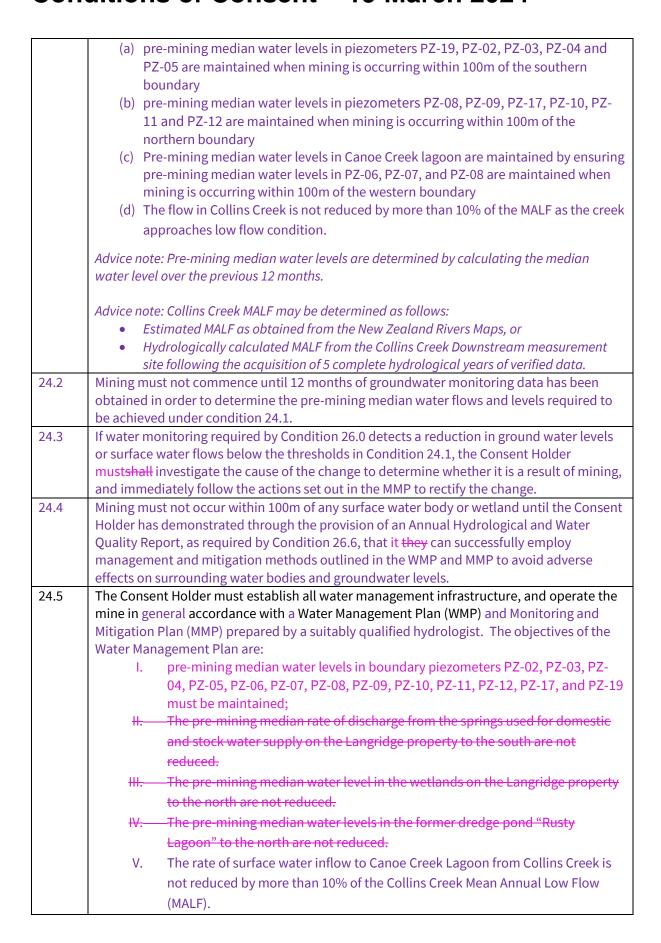
19.3	Within 12 months of (but not prior to) the completion of mining, the processing plant and buildings must shall be removed with the exception of the Heavy Mineral Concentrate Storage Shed, and the bund areas rehabilitated into pasture.
19.4	No later than 12 months after the completion of mining, the remaining areas of the proposed wetland area (Clean Water Facility and Future Wetland Extension) shown in the attached "Landscape Mitigation Planting Plans" prepared by Glasson Huxtable Landscape Architects dated January 2024April 2023 must shall be constructed and planted.
19.5	The consent holder must shall source plants required for the planting and wetland area required from within the Punakaiki Ecological District or North Westland Ecological Region in order of preference. Where this is unable to be achieved, the consent holder must shall notify the Council and work with the Council and a suitably qualified practitioner to determine an appropriate alternative plant source.
19.6	The wetland construction, (Clean Water Facility and Future Wetland Extension). Canoe Creek coastal lagoon edge, Coastal mitigation plantings, existing riparian planting (Canoe Creek and Collins Creek) and coastal lagoon edge and Collins Creek and Northern Boundary Drain riparian planting must shall be undertaken and managed in accordance with a Wetland Construction and Riparian Planting Plan (WRPP) prepared by a suitably qualified ecologist. The WRRP must distinguish between those areas to be planted prior to mining, and areas to be planted at the completion of mining.  The WWRP plan shall confirm and delineate all wetland and riparian areas which will be established and remain at the closure of the mine. It shall include the identification of fencing where necessary to limit stock access and within which existing and proposed planting will be required to be maintained during the mine operation.
	The objectives of this plan are:  To create or enhance habitat for indigenous species along the Site's existing
	coastal edge and within Canoe Creek Lagoon.
	<ul> <li>Encouraging natural regeneration of indigenous species by fencing off planting areas and having effective weed and animal pest management.</li> </ul>
	• To revegetate the constructed wetland and both edges of the part of Collins Creek and the Northern Drain and the area of coastal planting with ecologically appropriate species and restore indigenous vegetation to at least 50% cover at 1 m height as demonstrated in plots across both wetland sites.
	<ul> <li>Manage exotic pest plants (particularly woody weeds identified in this plan) over         exiting planting the restoration sites to a level of less than 5% cover as         demonstrated in wetland monitoring plots across both wetland and riprarian         sites.</li> </ul>
	<ul> <li>Improve terrestrial and wetland habitat quality and create corridors for wildlife movement.</li> </ul>
	<ul> <li>Encourage natural ecosystem processes including the regeneration and dispersal of indigenous fauna and flora.</li> </ul>
	Improve water quality and aquatic habitats in Collins Creek and the Northern Drain.

	Advice Note: All Management Plans are required to adhere to the requirements of Condition 6.0.
19.7	The WRRP must <del>shall</del> include:
13.1	- A description of the site
	- A description of the riparian planting required by Conditions 19.1(b)-(f);
	- A final wetland design that, when the planting required in Condition 19.1(d) and
	19.4 are combined, achieves an area of 1.9ha with the following habitats:
	a) An <del>is </del> island of 2,000m <sup>2</sup>
	b) At least 5,000m <sup>2</sup> open water up to 2m deep
	c) At least 5,000m <sup>2</sup> of shallow water (0.5m deep)
	d) At least 5,000m <sup>2</sup> of water 0.5 m – 2 m deep planted primarily in raupō
	e) At least 1,000m <sup>2</sup> of wet edge planting comprised primarily of rushes and
	sedges (Juncus spp., Carex spp.,) and shrubs such as mikimiki (Coprosma
	propinqua).
	f) A plant density of no less than 5,000 stems per hectare.
	- Wetland construction methodology, including details of the pre-mining and post-
	mining areas of the constructed wetland.
	- Site preparation requirements for the wetland and riparian planting
	- Planting methodology for planting wetland, riparian and coastal areas
	- Monitoring and maintenance requirements to ensure the survival and ecological
	functioning of the constructed wetland, including pest and weed control to
	achieve Condition 19.8.
	- A timeline for the planting which aligns with conditions 19.1 – 19.4
19.8	All planting must shall be maintained for the duration of the consent. Any plants that are
	dead, diseased, fail to thrive or are damaged must <del>shall</del> be replaced with a same or similar
	plant species within the following planting season.
19.9	Notwithstanding Conditions 19.1-19.8 above, the plant species Metrosideros umbellata
	(southern rata), and Laurelia novae-zelandiae (pukatea) must <del>are</del> not <del>to</del> be used on site.
19.10	The existing mature flax located adjacent to the stock stand off pad which is located in the
	northeastern part of the Mine Disturbance area must <del>shall</del> be retained for the duration of
	mining activity for visual screening purposes.
19.11	At the completion of mining and before the expiry of this consent, the consent holder must
	arrange for a section 108(2)(d) Resource Management Act 1991 covenant in favour of Grey
	District Council <u>must</u> which to be registered on the Certificate of Title 447182 (RS 2847).
	The covenant must shall provide for the following:
	In respect of the wetland area identified on the attached plan XXXX dated XXX, the area
	must be retained as wetland and shall be fenced to exclude livestock. Primary production
	activities must not occur in this area., and no pastoral farming, <u>forestry</u> must shall occur
	within the wetland area.
19.11	At the completion of mining and before the expiry of this consent, the consent holder must
	arrange for a section 108(2)(d) Resource Management Act 1991 covenant in favour of Grey
	District Council which is to be registered on the Certificate of Title 447182 (RS 2847)
	affecting the area shown as Proposed Covenant Area identified on the Planting Covenant
	Area Plan enclosed as Schedule 6. The covenant must shall provide for the following:
	In respect of the Proposed Covenant Area (2.88ha) wetland area identified on the Planting
	Covenant Area plan prepared by Tai Poutini Resources dated 15 March 2024 attached plan
	XXXX dated XXX, the area must shall be fenced to exclude livestock, and no pastoral
20.0	farming must shall occur within the wetland area.
<del>20.0</del>	Hazards

	The Consent Holder must always have a Site Emergency Management Plan (SEMP) that as			
	<del>a minimum shall:</del>			
	a)—Be prepared in consultation with Fire and Emergency NZ.			
	b)—Submitted to Grey District Council for approval.			
	c) Identify the people responsible for implementing the SEMP.			
	d) Identify natural hazard and other major safety risks the site is potential			
	subject to. e)—Identify the methods the consent holder will implement to minimise the			
	risks under sub-clause d).			
	f)—Identify methods that will be implemented by the consent holder to			
	remediate the site and surrounding area in the event of a risk identified in			
	sub-clause d) affecting the site so that any residual adverse effects on the			
	environment are minimised.			
	g)—Describe the training of staff regarding implementing of the SEMP.			
	h)—List the communication procedures with Grey District Council, West Coast			
	Regional Council and FENZ in the event of a risk identified in sub-clause d)			
	occurring.			
	Notes:			
	<ul> <li>All Management Plans are required to adhere to the requirements of Condition 6.0.</li> </ul>			
	<ul> <li>At a minimum the risks identified under sub-clause d) shall include the risks of</li> </ul>			
	coastal inundation, coastal erosion, seismic risks, river flooding, other extreme			
	weather events, fire and mine explosion. General health and safety risks do not have			
	to be addressed.			
	• The consent holder need only remediate the area outside the site in the instance the			
	material from the mine is transported by a natural hazard event to another area. The			
	consent holder will require the permission of the relevant landowner before			
	proceeding with any remediation on land outside the site.			
20.5				
20.0	Water supply			
20.0	Water supply Sufficient water supply must shall be provided on the site in accordance with the NZ Fire			
20.0				
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20.0	Sufficient water supply must shall be provided on the site in accordance with the NZ Fire			
22.0	Sufficient water supply must shall be provided on the site in accordance with the NZ Fire			
22.0	Sufficient water supply must shall be provided on the site in accordance with the NZ Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008.  Setback from wetlands No part of the activity shall be located within 100m of a wetland or coastal lagoon.  cidental Discovery Protocol			
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21.2	If the Consent Holder identifies any archaeological discoveries or potential areas or sites of
	historic value, the Consent Holder must <del>shall</del> immediately notify the Consent Authority
	and a representative of Heritage New Zealand Pouhere Taonga.

General	Conditions to Apply to all WCRC Consents
22.0 Me	thod of Mining
22.1	The consent holder must shall only carry out mining activities within the mining area shown on the attached map titled "TiGa Consent Application" prepared by Tai Poutini Professional Services Ltd dated 18 January 2024 attached as Schedule 122 March 2023.
22.2	The maximum combined surface area of un-rehabilitated disturbed land in the application area must shall-not exceed 8.0 hectares at any one time.
22.3	The mining and associated activities under this consent must not cause or induce erosion or slope instability outside the application area.
22.4	Mining activities must not occur within 100m of the Canoe Creek lagoon within the first 12 months of mining operations commencing.
23.0 Erc	sion and Sediment Control Plan
23.1	The Consent Holder must operate in general accordance with the Erosion and Sediment Control Plan labelled 'Barrytown Mineral Sand Operation Erosion and Sediment Control Plan and Water Management' (ESCP) prepared by Ridley Dunphy Environmental Ltd, dated January 2024April 2023. The objectives of the ESCP are:  • To use established guidelines and practices to minimise sedimentation of waterbodies adjacent to the mining area;  • To assist with compliance with the water quality parameters in Condition 25.0.
23.2	A Site Specific Erosion and Sediment Control Plan (SSESCP) must be prepared and reviewed annually and submitted to the Consent Authorities with the Annual Work Programme, reflecting the water management and mitigation measures proposed for construction and mining for the following 12 months, and adhering to principles of the Erosion and Sediment Control Plan in Condition 23.1 above. The SSESCP must shall include:  • Location of the work; • Contour information; • Erosion and Sediment Controls (ESCs) ESCs; • Chemical treatment requirements, design and details; • Catchment boundaries; • Details of construction methods; • Contingency measures; • Design details; • A programme for managing non-stabilised areas; • The identification staff who will manage ESCs; • The identification of staff who monitor compliance with conditions; • A chain of responsibility for managing environmental issues; and
24.01/-	Methods and procedures for decommissioning measures (if applicable)
24.0 Wa 24.1	ter Management Plan  Mine water must be managed to ensure the outcomes in condition 24.1 are met by
24.1	ensuring:



- VI. The flow in Collins Creek is not reduced by more than 10% of the MALF as the creek approaches low flow condition.
- VII. Flow consistent with the drain's intermittent hydrological function and with dry weather flows is maintained in Northern Boundary Drain downstream of piezometer PZ-10 during periods when Collins Creek approaches within 120% of its MALF, i.e., dry spells.
- VIII. The quality of water discharged to receiving waters will not cause adverse impacts on stream ecology and visual clarity.
  - IX. The rate of take of water from Canoe Creek is not greater than 10% of the MALF.
  - X. Potential adverse ecological impacts associated with discharge of naturally present toxic metals and phosphorus in downgradient surface waters are avoided.
  - XI. The pre-mining surface drainage patterns are restored such that the catchments areas for the Northern Boundary Drain and Canoe Creek Lagoon are not changed significantly.
- XII. The soil profile restoration, land contouring and surface drainage installed during mine rehabilitation does not increase the rate of groundwater drainage at the site.

The objectives of the Monitoring and Mitigation Plan are to:

- XIII. Ensure that adverse effects on ground and surface water levels in adjacent water bodies are avoided, by employing monitoring and mitigation methods at or within the boundary of the disturbance area.
- XIV. Ensure that potential water quality impacts associated with mining activities are identified as quickly and clearly as possible via monitoring.
- XV. Identify actions that will be undertaken to avoid, remedy or mitigate water quality effects through implementation of appropriate actions in a timely manner where required.

Advice Note: All Management Plans are required to adhere to the requirements of Condition 6.0.

- 24.6 The WMP must include a description of the water management methods for the site, including:
  - A description of the baseline monitoring and the receiving environment
  - The proposed mine area.
  - A description of all site activities with the potential to cause hydrological impacts
  - The water management actions that will be implemented to avoid hydrological effects, including:
    - The Canoe Creek water intake
    - The mine pit dewatering system
    - The water treatment train, including settling infrastructure, and other mitigation measures to achieve the required water quality outcomes in Condition 26.0

- The mine infiltration system to return treated mine water to groundwater and maintain groundwater levels, including infiltration trenches and/or injection wells as required
- The discharge from the water treatment ponds to surface waters
- The design, construction and operation of the Canoe Creek infiltration basin
- Operational water level and water quality monitoring requirements for the duration of the activity
- Groundwater level thresholds and actions to be taken should these thresholds be exceeded
- Surface water body flow threshold for Collins creek and actions to be taken should these thresholds be exceeded
- Actions to be taken if water quality thresholds are exceeded
- Final Rehabilitation requirements to avoid adverse hydrological impacts on waterbodies post-mining
- Audit checklists.
- An organisational chart showing staff and contractor positions and responsibilities for plan implementation.
- Relevant training and induction procedures and schedules.
- 24.7 The WMP must be updated on an annual basis and must be submitted to the Consent Authority for certification in accordance with condition 6.0. The annual update is required to:
  - reflect the proposed mining operations for the following 12 months; and
  - provide any additional or amended monitoring and mitigation requirements in order to reduce the potential for adverse hydrological and/or water quality effects.

### **Conditions to Apply to WCRC Discharge Permit**

### 25.0 Method of Discharge during mining activity

- During mining, All contaminated stormwater and other contaminated site water within the site must be directed into the mine water facility, and either recirculated for use in the processing plant, or discharged to the 'Central Drain' for further treatment in the Clean Water Facility at the northwestern corner of the application site.
- During mining, treated mine water is only permitted to be discharged directly to the drain beyond Pond 4, or to Collins Creek or the Northern Drain or to the Canoe Creek infiltration basin if:
  - metal and metalloid water quality parameters in Table A below are complied with at the respective downstream monitoring sites located at or about the sites shown in Schedule 8: Canoe Creek Lagoon, Collins Creek Downstream, N Boundary Drain and Canoe Creek Downstream; and
  - the non-metal water quality parameters in Table B below are complied with at the locations defined in Table B; and
  - in the circumstances of Condition 25.5 below

Table A - m	etals and	metal	loids
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Parameter	Threshold mg/L	Dependency
Aluminium	0.62 <sup>B</sup>	Hardness, pH, Dissolved
		Organic Carbon
Arsenic	0.013	As arsenic (V)
Boron	0.94	NA
Cadmium	0.0002 <sup>D</sup>	Hardness
Chromium	0.0033 <sup>D</sup>	Hardness, as chromium (III)
Copper	0.0039 <sup>E</sup>	Hardness, pH, Dissolved
		Organic Carbon
Iron	1.0	As total fraction
Lead	0.0034 <sup>D</sup>	Hardness
Manganese	1.9	NA
Nickel	0.011 <sup>D</sup>	Hardness
Zinc	0.008 <sup>D</sup>	Hardness

<sup>&</sup>lt;sup>A</sup> dissolved fraction, unless stated

### Table B - Non-metals

Parameter Threshold		Notes/Monitoring Location
Total Suspended	20 mg/L	Applies to discharges to Collins Creek,
Solids		Northern Boundary Drain or to the overland
		flow path to Canoe Creek Lagoon. Does not
		apply to the discharge from Canoe Creek
		infiltration basin. Monitoring locations are
		Canoe Creek Lagoon, Collins Creek
		Downstream, Northern Boundary Drain,
		shown in Schedule 8.
Turbidity	20 NTU	Applies to discharges to Collins Creek,
		Northern Boundary Drain or to the overland
		flow path to Canoe Creek Lagoon. Does not
		apply to the discharge from Canoe Creek
		infiltration basin. Monitoring locations are
		Canoe Creek Lagoon, Collins Creek
		Downstream, Northern Boundary Drain,
		shown in Schedule 8.
		In the receiving water bodies above based on
	Conspicuous	visual inspection at the upstream and
	visual change	downstream monitoring sites (see advice
Visual clarity	visual Change	note 3 below) Monitoring locations are Canoe
		Creek Lagoon Upstream, Canoe Creek
		Lagoon, Collins Creek Upstream, Collins
		Creek Downstream, Northern Boundary Drain

 $<sup>^{\</sup>rm B}$  at hardness = 25 g/m $^{\rm 3}$ , pH = 7.0, Dissolved Organic Carbon = 1.0 g/m $^{\rm 3}$ 

<sup>&</sup>lt;sup>c</sup> 95%-ile trigger value

<sup>&</sup>lt;sup>D</sup> at hardness =  $30 \text{ g/m}^3$ 

<sup>&</sup>lt;sup>E</sup> at hardness = 25 g/m³, pH = 7.0, Dissolved Organic Carbon = 2.0 g/m³

			Upstream, Northern Boundary Drain Downstream shown in Schedule 8.
			Downstream snown in Schedule 8.
			No change in the attribute states of the
			receiving surface water bodies, as an annual
		Relevant NPS-	median and a 95%-ile, versus the baseline
		FM (2020)	states. See advice note 2 below.
		attribute state for visual clarity	Monitoring locations are Canoe Creek  Lagoon, Collins Creek Downstream, Northern
		loi visual clarity	Boundary Drain, Canoe Creek Downstream
			shown in Schedule 8.
	Dissolved Reactive	Relevant NPS-	No change in the attribute states of the
	Phosphorus (DRP)	FM (2020)	receiving surface water bodies, as an annual
		attribute state	median and a 95%-ile, versus the baseline
			states. See advice note 2 below. Monitoring
			locations are Canoe Creek Lagoon, Collins
			Creek Downstream, Northern Boundary
			Drain, Canoe Creek downstream shown in
			Schedule 8.
	Advice note:		
	1. Water quality monito	ring conditions to es	stablish the ability to discharge under this
	condition are contained	d in Condition 26.0 b	elow.
			DRP must <del>shall</del> be either a) defined via at least 12
		•	reek, Northern Boundary Drain, Canoe Creek and
	_		of pristine water quality (A Band). In the case of a),
	approval at least 4 wee		sessment must <del>shall</del> be submitted to WCRC for
25.3			st <del>shall</del> not contain any contaminants other than
			gelements and metals, and water treatment
	chemicals in accordan		
	a) The us	se of any water treat	tment chemical(s) is/are permitted as long as they
	are us	ed in accordance w	ith its Material Safety Data Sheet(s) (MSDS).
	b) The C	onsent Holder mu	st notify the Consent Authority in writing and
	provid	le the respective M	SDS of any water treatment chemical(s) used in
	accord	dance with the abov	ve condition before it is used.
25.4	The Consent Holder m	ust <del>shall</del> take all pra	acticable measures to prevent uncontaminated
	stormwater entering th	ne mine workings ar	nd disturbed areas to reduce the volume of water
			pond system, and to improve the efficiency of
	the water reticulating s	system.	
25.5	Troated mine water is	anly pormitted to be	o discharged avarland from the Canaa Craal
25.5			e discharged overland from the Canoe Creek owing rainfall events take place, as taken from
		TOO GICCINII LIIC IOLU	oming railinant events take place, as taken nom

the West Coast Regional Council rainfall gauge at the Westport Aerodrome or a weather station erected on site:

- a) The rainfall exceeds 50 mm in any 24 hour period immediately prior to the discharge (https://cliflo.niwa.co.nz/pls/niwp/wstn.stn\_details?cAgent=7342);
- b) The rainfall exceeds 100 mmm in any contiguous 7 day period immediately prior to the discharge (https://cliflo.niwa.co.nz/pls/niwp/wstn.stn\_details?cAgent=7342)

### 26.0 Water Monitoring

- The consent holder must visually inspect the Mine Water Facility, Clean Water Facility and Central Drain at least once daily. Visual inspections should identify any significant sediment build up in the Mine Water Facility or Clean Water Facility, and any noticeable change in the water clarity in the Central Drain or Clean Water Facility which would indicate further erosion and sediment control mitigation measures are required to improve discharge water quality. A record of daily inspections must be kept on site and made available to the Consent Authority if requested.
- The consent holder must carry out water monitoring at the locations shown in the ESCP Overview Concept Plan (Schedule 7) and the Proposed Monitoring Network (Schedule 8), and as listed in the table below:

Location	Parameter(s)	Frequency
Pond 2 discharge	Turbidity	Continuous
		Automated
Pond 4 discharge	Turbidity	Continuous
		Automated
Pond 4 discharges to	Flow	Daily
Canoe Creek Lagoon		
Pond 4 discharges to:	Flow	<del>Daily</del> Continuous
1. Canoe Creek Lagoon		Automated
<ol> <li>infiltration system</li> <li>Infiltration basin</li> </ol>		
Infiltration basin     Collins Creek		
augmentation		
4. Northern Boundary		
Drain augmentation		
Central Drain – upstream	Turbidity	Weekly
of mining activity		
Central Drain – upstream	Turbidity	Weekly
of Pond 3		
Pond 2/4 discharge****	Monitoring Suite A*	Quarterly (metals)
		Monthly (Others)

	Canoe Creek Lagoon	Monitoring Suite A*	Quarterly (metals)
	Upstream**	Visual clarity	Monthly (Others)
	Canoe Creek Lagoon	Monitoring Suite A*	Quarterly (metals)
		Visual clarity	Monthly (Others)
İ	Collins Creek Upstream	Monitoring Suite A*	Quarterly (metals)
		Visual clarity	Monthly (Others)
Ī	Collins Creek Downstream	Monitoring Suite A*	Quarterly (metals)
		Visual clarity	Monthly (Others)
	Northern Boundary Drain	Monitoring Suite A*	Quarterly (metals)
	Upstream**	Visual clarity	Monthly (Others)
Ī	Northern boundary Drain	Monitoring Suite A*	Quarterly (metals)
	Downstream	Visual clarity	Monthly (Others)
	Canoe Creek Upstream	Monitoring Suite A*	Quarterly (metals)
			Monthly (Others)
			(only if discharging
			to Canoe Creek
			Infiltration Basin)
С	anoe Creek Downstream	Monitoring Suite A*	Quarterly (metals)
			Monthly (Others)
			(only if discharging
			to Canoe Creek
			Infiltration Basin)
	Collins Creek Upstream	Flow	<del>Daily</del> Hourly
	Collins Creek Downstream	Flow	<del>Daily</del> Hourly
	PZ01, 02, 03, 04, 05, 06, 07,	Water level	<del>Daily</del> 6 hourly
	09, 10, 11, 12, 13, 18 and		
	19		
Ĭ	Canoe Creek Intake	Flow	15 minutes
	Canoe Creek Infiltration	High Water Level	Hourly
	Basin		

<sup>\*</sup>Monitoring Suite A includes the following water quality indicators:

Dissolved metals:	<del>Others:</del>
Aluminium	<del>EC </del>
Arsenic	<del>pH</del>
Cadmium	<del>- Sulphate</del>
Chromium	<del>TSS</del>
Lead	<del>Turbidity</del>
Nickel	<del>Hardness</del>
Zinc	Dissolved Reactive Phosphorus

	<del>Iron</del>	Nitrogen (nitrate & ammoniacal nitrogen)
	Manganese -	
	Dissolved metals	Others
	Aluminium (Q)	EC (M)
	Arsenic (Q)	pH (M)
	Boron (Q)	Turbidity (M)
	Cadmium (Q)	TSS (M)
	Chromium (Q)	Hardness (Q)
	Copper (Q)	Sulphate (Q)
	Iron (Q)	Amm-N (M)
	Nickel (Q)	NO <sub>3</sub> -N (M)
	Lead (Q)	Dissolved Reactive Phosphorus (M)
	Manganese (Q)	
	Zinc (Q)	
	given the dynamic no	in upstream site must <del>shall</del> be the lowest point in the stream which is a)
	observation. If there taken.	harge and b) at which visible flow is occurring on the day of the is no visible flow in the drain, no upstream discharge sample can be
	directly from Pond 2	rater treatment infrastructure installed, water may be discharged instead of Pond 4, if water quality parameters are met.
26.3	authorised under the receiving waterbody	ndition 26.2, all discharges associated with the mining operations ese consents must not cause any of the following effects within any measured at the downstream water quality monitoring sites in wond 100 metres from any discharge:
		conspicuous oil or grease films, scums or foams, or floatable or
		pended materials,
	•	conspicuous change in the colour or visual clarity,
		· · · · · · · · · · · · · · · · · · ·
		emission of an objectionable odour,
		significant adverse effects on aquatic life, or
	e) The	rendering of fresh water unsuitable for consumption by farm animals.
26.4	1	nder this condition must be undertaken and analysed by suitably and the results supplied to the Consent Authority annually as part of ogramme.
26.5		must inform a Compliance Officer of the Consent Authority ach of Consent Condition(s) takes place, or when they believe that a ce.
26.6	_	cal and Water Quality Report must <del>shall</del> be submitted to WCRC with gramme in accordance with Condition 5.2 for review and evaluation of

compliance. The report must should be prepared by a suitably qualified and experienced person and include the following information:

- 1. A summary of the monitoring undertaken over the preceding 12 months. The summary must shall:
  - a. Reference the specific consent conditions under which the monitoring has been undertaken to show how the conditions have been complied with.
  - b. Provide tables of the water quality data collected in accordance with Condition 26.2
- 2. Discussion and evaluation of the monitoring data in relation to the relevant conditions including a summary of compliance with conditions;
- 3. A summary of the actions that have been undertaken in response to any exceedance(s) of water quality limits;
- 4. Records of the visual inspections that have been undertaken in accordance with Condition 26.1 and condition 26.3.
- The Consent Holder must engage a suitably qualified aquatic ecologist to carry out annual macroinvertebrate and fish surveys in Collins Creek, the Northern Boundary Drain and Canoe Creek. The proposed survey methodology, including the locations where macroinvertebrate (taxa number and composition) and fish sampling will be undertaken, the timing of the sampling, the methods that will be used to undertake the sampling, the name of the authorised person who will undertake the monitoring and reporting methods must be submitted to the Consent Authority 20 working days prior to the survey being undertaken, for the Consent Authority to certify the survey methodology. If the Consent Authority refuses to certify the survey methodology, it must give reasons in writing, and the Consent Holder must resubmit the survey methodology for certification addressing any concerns of the Consent Authority. Surveys must not be undertaken until certification is achieved. The results of the survey must be submitted to the Consent Authority within 10 working days of the results being received.

Advice Note: The surveys required by this condition are to inform baseline information about aquatic biota present within the waterbodies around the consent area, and monitor long term trends in species diversity and prevalence.

26.8 Macroinvertebrate monitoring required by Condition 26.7 must be conducted using Protocol P2 and C1 from the Ministry for the Environment Macroinvertebrate Guidelines and the samples must be analysed by an aquatic ecologist experienced in macroinvertebrate sampling and identification. Monitoring must be undertaken on a day on which there has been no major flood event in the preceding week. Whenever practicable, sites that have been sampled in the past must be used.

### **Conditions to Apply to WCRC Air Discharge Permit**

### 27.0 Dust Management Plan

27.1 The Consent Holder must operate the site in general accordance with a Dust Management Plan prepared by TiGa minerals and Metals, dated January 2024. The objective of the Dust Management Plan is to detail the best practicable option to avoid dust nuisance being caused by construction and mining works and to mitigate any such effects should they occur.

	April 2023., except as amended to include:
	a. A map of sensitive receptors.
	b. A reporting process to the Council regarding the implementation of the
	<del>contingency process.</del>
	c. A requirement to keep the daily log of dust monitoring inspections and
	make them available for Council inspections.
	d. A record of complaints that is available to both local authorities upon
	request. The record of complaints should include the location, date and
	time of complaint, a description of weather conditions (notably wind speed
	and direction), any identified cause of the complaint, and the corrective
	<del>action taken.</del>
	e. Monthly dust monitoring that ensures all potential dust generating
	activities are being monitored.
	f. Dust monitoring in response to complaints about dust emissions.
	g. Dust monitoring results should be provided to both local authorities and
	the community liaison group.
_	The Dust Management Plan must <del>shall</del> include:
	a. Potential sources of dust that may be created during the mining project.
	b. Sensitive receptors in the vicinity of identified potential sources of dust for targeted
	dust management.
	c. Dust management and mitigation methods.
	d. Monitoring methods.
	e. Training of staff in relation to dust management; and
	f. Methods for managing complaints regarding discharges into air and keeping
	compliance records.
27.2	Vehicles must shall not exceed 15 km/hr on site at all times to avoid dust generation, and effects on wildlife.
27.3	If wind measured at the meteorological station on site exceeds 20km/hr, the Consent
	Holder must:
	a. limit activities that generate dust downwind of sensitive receptors
	identified in the Dust Management Plan; b. conduct frequent visual inspections of exposed earthwork areas; and
	c. assess the need for additional controls such as increase water
	application rates.
28 N Air	Quality Management and Monitoring
28.1	There must shall be no offensive or objectionable discharge of dust into air from the
	minerals extraction, processing and loading operations that results in an adverse effect
	beyond the legal boundary of the site.
	<b>Advice note:</b> For the purpose of Condition 28.1 the Consent Authority will consider an effect that is offensive as objectionable to baye accurred if an Enforcement Officer of
	effect that is offensive or objectionable to have occurred if an Enforcement Officer of the Consent Authority deems it so having regard to
<u> </u>	are consentrationly deems it so having regard to

	i) The frequency, intensity, duration, amount, effect and location of the
	suspended or particulate matter; and/or
	ii) Receipt of complaints from neighbours or the public: or
	iii) Relevant written advice or a report from an Environmental Health Officer of
	a territorial authority or health authority.
28.2	Prior to the commencement of site preparation activities, a meteorological station must be installed at the site with instruments capable of continuously monitoring, logging in real time and reporting agreed representative meteorological data for the site.
28.3	The consent holder must shall-install, operate and maintain twofour Dust Deposition Gauges in the locations shown in the Dust Management Plan. Dust recorded in the gauges must shall not exceed a value 4g/m²/30 days above background levels.  Advice note: Background levels are to be determined by data collected prior to the
	commencement date of this consent.
28.4	If a breach of Condition 28.3 is detected, the consent holder must shall notify the consent authority within two working days of the breach being detected. The consent holder must shall investigate possible reasons for the breach and take all necessary steps to achieve compliance in the following 30 day period.

### 29.0 Groundwater and surface water abstraction outcomes

- 29.1 Dewatering and associated mitigation measures must shall achieve the following outcomes:
  - I. The pre-mining median rate of discharge from the springs used for domestic and stock water supply on the Langridge property to the south is not reduced.
  - II. The pre-mining median water level in the wetlands on the Langridge property to the north are not reduced.
  - III. The pre-mining median water levels in Canoe Creek Lagoon and the former dredge pond "Rusty Lagoon" to the north are not reduced.
  - I. Pre-mining median water levels in piezometers PZ-19, PZ-02, PZ-03, PZ-04 and PZ-05 are maintained when mining is occurring within 100m of the southern boundary;
  - II. Pre-mining median water levels in piezometers PZ-08, PZ-09, PZ-17, PZ-10, PZ-11 and PZ-12 are maintained when mining is occurring within 100m of the northern boundary;
  - III. Pre-mining median water levels in Canoe Creek lagoon are maintained by ensuring pre-mining median water levels in PZ-06, PZ-07, and PZ-08 are maintained when mining is occurring within 100m of the western boundary;
  - IV. The pre-mining median and lower flows in the Northern Drain are not reduced.

- V. The median and lower flows in Collins Creek are not reduced by more than 2 L/s.
- VI. The rate of take of water from Canoe Creek is not greater than 10% of the Mean Annual Low Flow.
- VII. The pre-mining surface drainage patterns are restored such that the catchments areas for the Northern Boundary Drain and Canoe Creek Lagoon are not changed significantly.

#### Advice note:

Compliance with conditions I to IV must shall be deemed to have occurred under the following circumstances:

- At least 12 months of groundwater level monitoring has been undertaken at representative locations around the site boundary and a pre-mining median groundwater level has been defined for monitoring wells PZ01, 02, 03, 04, 05, 06, 07, 09, 10, 11, 12, 13, 18 and 19
- The above wells are monitored on a minimum daily frequency for the duration of any mining activity below the water table
- The monitoring results for each well show that the average monthly water level is greater than or equal to the pre-mining median for that well.

Compliance with condition V must shall be deemed to have occurred under the following circumstances:

- The average natural difference between the upstream and downstream flow in Collins Creek has been defined through at least one year of monitoring of flows upstream and downstream of the mineral sand excavation area.
- Upstream and downstream flow monitoring occurs at the locations shown in Schedule 8 for the duration of any mining activity below the water table.
- The average monthly flow in the downstream site is no more than 2 L/s less than the
  upstream site +/- the average natural difference between the upstream and
  downstream sites, taking into account the normal accuracy limitations of flow
  monitoring equipment.

Compliance with condition VI must shall be deemed to have occurred if the maximum rate of take from the creek (or an adjacent infiltration gallery) is no more than 63 L/s
Compliance with condition VII must shall be deemed to have occurred if the excavation area is contoured to re-establish the existing distribution of drainage such that the catchment area draining to the Northern Boundary Drain does not change by more than 15% (i.e. 1 ha).

	area draining to the Northern Boundary Drain does not change by more than 15% (i.e. 1 ha).	
30.0 Canoe Creek water take		
30.1	The instantaneous surface water take from Canoe Creek must shall not exceed a water	
	take limit of 63 litres per second.	
30.2	The Consent Holder must shall undertake monitoring of the water take at 15 minute	
	intervals and supply this information electronically to the Consent Authority every day, or	
	at the interval instructed in writing by the Consent Authority.	
	Advice note: the Resource Management (Measurement and Reporting of Water Takes)	
	Amendment Regulations 2020 applies to this water take.	
30.3	The Consent Holder must shall maintain auditable records and provide data in the format	
	of date, time and rate that is suitable for electronic storage.	
30.4	The Consent Holder must shall maintain the measurement device(s) in good working order	
	so as to maintain a measurement accuracy of within ± 5% for a fully pressurised pipe or ±	
	10% for a partially pressurised pipe.	

	The Consent Holder must shall provide the Consent Authority with initial written verification of accuracy from a suitably qualified person that the measurement device
	measures the volume of water taken to within $\pm$ 5% for a fully pressurised pipe or $\pm$ 10% for
30.5	a partially pressurised pipe, and thereafter every five years for the term of the consent.  The Consent Holder must shall provide the following information to the Consent Authority no later than ten working days prior to the water being taken under this consent:
	<ul> <li>a. The type of measurement device(s) used to undertake the continuous monitoring together with the manufacturer's statement for that device; and</li> <li>b. The location of the measurement device(s) in relation to the water take point(s).</li> </ul>
30.6	Upon notice to the Consent Holder the Consent Authority may require the Consent Holder to cease water abstraction for a period not exceeding 48 hours, in order to undertake monitoring of natural water flows.
30.7	A fish screen on any direct surface water take must shall be maintained to ensure, as far as practicable, that eels, fish and fry are prevented from passing through the intake or being trapped against the screen.
30.8	The water take from Canoe Creek must shall only be used for operational water supply purposes, and must shall not be used to augment surface water flows in Collins Creek or the Northern Boundary Drain.