H Land Use (s9) Landfill

Resource Consent: .......

**Grants to:** CCKV Maitai Dev Co Limited Partnership

**Lapse Date:** 10 years after consent commences

**Expiry date:** No expiry

**Location:** 7 Ralphine Way, Maitai Valley, Nelson

Subject to the following conditions:

#### **General conditions**

- The activity shall be carried out in accordance with the application for resource consent, including
  any further information provided, and in accordance with the following conditions of consent.
  Where there is any apparent conflict between the application and consent conditions, the consent
  conditions shall prevail.
- 2. Only fill material from the development of the Maitahi Village Subdivision shall be placed in the landfill area.
- 3. The consent holder shall advise the Council's Monitoring Officer in writing, at least 5 working days prior to works commencing on site, so that monitoring of the conditions of this consent can be undertaken. Please email <a href="mailto:regulatory@ncc.govt.nz">regulatory@ncc.govt.nz</a> and advise the consent number, xxxxxx.

#### Māori Cultural Values

- 4 Prior to the commencement of any works authorised by this consent, all contractors and subcontractors engaged in the implementation of this consent shall participate in a cultural induction delivered by Ngāti Koata or their nominated representatives.
  - The purpose of the induction is to ensure that all personnel are aware of and understand the tikanga (customs), kawa (protocols), and culturally significant matters relevant to the area and the scope of the works.
  - A record of induction attendance shall be maintained by the consent holder and made available to the Council and Te Tauihu Iwi representatives upon request.
- During all excavation activity, the consent holder shall ensure that a mandated cultural observer (iwi monitor) is available to oversee works. Iwi monitors shall determine, at their discretion, where direct monitoring is required, with the presumption that all ground disturbance activities are subject to monitoring unless otherwise advised by the iwi monitors.
- 6 Unless covered by an existing Archaeological Authority, in the event of any discovery of archaeological material:
  - (a) the Consent Holder shall immediately:
    - i. Cease earthworks and mark off the affected area;
    - ii. Advise the Council of the discovery; and
    - iii. Advise Heritage New Zealand Pouhere Taonga of the discovery;
  - (b) If the archaeological material is determined to be kōiwi tangata (human bones) or taonga (treasured artefacts) by Heritage New Zealand Pouhere Taonga, the Consent Holder shall immediately advise the office of Te Rūnanga o Ngāti Kuia Trust, Ngāti Apa ki te Rā Tō Trust, Te Rūnanga a Rangitāne o Wairau, Ngāti Koata Trust, Te Rūnanga o Ngāti Rārua, Te Rūnanga o Toa Rangatira, Ngāti Tama ki te Waipounamu Trust, and Te Ātiawa o te Waka-ā-Māui

- Trust(office contact information can be obtained from the Nelson City Council and the New Zealand Police) of the discovery; and
- (c) Work may recommence if Heritage New Zealand Pouhere Taonga (following consultation with rūnanga if the site is of Māori origin) provides a statement in writing to the Council that appropriate action has been undertaken in relation to the discovery.
- The consent holder shall work in partnership with Ngāti Koata Trust and other relevant iwi Pou Taiao to define appropriate indicators, monitoring locations, and reporting formats to integrate mātauranga Māori indicators of cultural health into the stream monitoring methods.

The Consent Holder shall engage a suitably qualified cultural practitioner to carry out Cultural Health Index monitoring at 6 months, 12 months and 24 months from the first application of flocculant. Should any cultural effects arise from this monitoring that can be directly attributed to the discharge of flocculants, the applicant shall resolve and remediate the issues with the appropriate iwi authority.

All iwi engagement and remediation works shall be carried out at the Consent Holder's expense.

### **Design and Construction Methodology**

- 8. Prior to any works commencing on site, the Consent Holder shall submit a Design and Construction Methodology (DCM) from the Contractor and reviewed and approved by the Geo-professional to Nelson City Council's ('Council') Monitoring Officer. The DCM shall include, but not be limited to, the following items:
  - Design and construction details of any toe buttress. This shall be designed by a Geo-Professional. This design shall consider the size of the rock and the depth at which to key the rock into good material;
  - ii. Fill details (material, volumes, height);
  - iii. Design of permanent stormwater swales and channels (must designed in accordance with the Nelson Tasman Land Development Manual 2019);
  - iv. Location, design and construction details of sediment retention pond;
  - v. Details of vegetation clearance; and
  - vi Details of the encapsulation prepared by a geoprofessional that includes location of the cell within the landfill, capacity of the cell, containment materials as described in Conditions 9-11 of this consent.
  - vii. how it should meet the general criteria listed in the RAP Table 6 Soil disposal criteria , Section 6.4 (eg max depth 500mm above gw, lined and covered etc).
- 9. All earthworks shall be designed by a Geo-Professional where relevant to achieve a low level of geotechnical instability risk. During construction, the Geo-professional shall undertake regular inspections to ensure the design is suitable for the prevailing ground conditions, and to provide further geotechnical recommendations in the event of unforeseen ground conditions.

# **Encapsulation Cell Waste Acceptance Criteria and Design**

- 10. The encapsulation cell shall be designed and constructed to provide complete environmental protection, including the use of a low permeability liner system, an engineered cap, and any other containment measures necessary to isolate contaminated soil from the surrounding environment.
  - i. All soil to be placed in the encapsulation cell shall meet the following Waste Acceptance Criteria (WAC):
    - For arsenic: the Wasteminz Class 3 WAC (as set out in Table 6 of the most recent Wasteminz Technical Guidelines for Disposal to Land).

- For dieldrin: the Low POP content threshold of < 50 mg/kg, as defined by the Environmental Protection Authority (EPA, 2023).
- ii. Any soil that exceeds the Class 3 WAC for arsenic shall not be placed in the encapsulation cell and must instead be disposed of to a facility authorised to accept such waste.
- iii. Prior to the construction of the encapsulation cell, the Consent Holder shall submit a final Encapsulation Cell Design Report, prepared by a Chartered Professional Engineer to the Council's Team Leader Environmental Compliance for review. The report shall confirm compliance with the design and acceptance criteria specified above and include the long-term monitoring and maintenance plan required under Condition 7.
- 11. The encapsulation cell shall be designed by a Chartered Professional Engineer with experience in landfill or containment cell design. The final Encapsulation Cell Design Report shall demonstrate that the cell design and construction meet, at a minimum, the following requirements:
  - i. Location and Depth:
    - The base of the cell shall be located no closer than 1000 mm above the highest known seasonal groundwater level;
    - The cell shall be located at least 25 metres from any surface water body, including the Kākā Stream, its tributaries, and any overland flow paths.

#### ii. Base and Sidewall Liner:

- A minimum 500 mm engineered clay liner shall be constructed on the base and up the sides of the cell using low permeability clay or similar material; Final geometry and design details for encapsulation cell will depend on volumes of soil requiring disposal encountered during subdivision construction, but sufficient capacity exists within the fill to accept disposal volumes an order of magnitude higher than anticipated.'
- The clay liner shall be compacted to achieve a permeability of no more than  $1 \times 10^{-9}$  m/s.

# iii. Waste Placement and Separation Layers:

- All contaminated soil to be encapsulated shall be placed in compacted layers to minimise voids;
- A geotextile fabric (e.g. Bidim or equivalent) shall be installed over the compacted soil to separate it from the capping system;
- A minimum 1,000 micron HDPE liner (or equivalent impermeable barrier) shall be installed over the geotextile fabric, with a minimum 300 mm overlap at all lateral joins, heat-welded or otherwise sealed to prevent leachate migration.

## iv. Capping System:

- A minimum 500 mm compacted clay cap shall be placed over the HDPE liner, followed by a minimum 200 mm topsoil layer to promote vegetation; Final geometry and design details for encapsulation cell will depend on volumes of soil requiring disposal encountered during subdivision construction, but sufficient capacity exists within the fill to accept disposal volumes an order of magnitude higher than anticipated.'
- All capping materials shall be tested to confirm suitability (e.g. for pH, contaminants, and structure) prior to placement;
- A layer of orange safety mesh or similar shall be installed 200 mm above the HDPE liner as an excavation warning barrier.

- v. Vegetation and Surface Finish:
  - Where vegetation is proposed, only shallow-rooted native plant species (e.g. tussocks
    or grasses) shall be used to avoid root penetration through the cap;
  - Planting shall be carried out in accordance with a certified planting plan developed in consultation with a restoration ecologist.

# **Encapsulation Cell Ongoing Management Plan**

12. The Consent Holder shall prepare and implement an Ongoing Site Management Plan (OSMP) for the encapsulation cell, to ensure the ongoing protection of human health and the environment. The OSMP shall be submitted to Council's Team Leader Environmental Compliance prior to the placement of any material into the encapsulation cell.

The OSMP shall be prepared by a suitably qualified and experienced practitioner (SQEP) and shall include, but not be limited to, the following:

- i. Ownership and Responsibility:
  - Identification of the party responsible for ongoing monitoring, maintenance, and reporting.
  - A mechanism to ensure responsibilities are maintained in perpetuity (e.g. consent notice, land covenant, or other legal instrument registered on the title).
- ii. Inspection and Monitoring Regime:
  - Schedule of inspections (at least annually) to assess the condition of the encapsulation cell cover, surface drainage, any erosion or subsidence, and vegetative cover.
  - Groundwater level monitoring, with specified monitoring location(s),.
  - Landfill leachate monitoring via an observation well installed by a landfill professional.
  - Contingency measures if monitoring identifies leachate migration, cap failure, or other risk to the environment.
- iii. Maintenance Requirements:
  - Procedures for maintaining integrity of the capping system, drainage infrastructure, and access controls.
  - Remedial action procedures in the event of damage or failure of any containment components.
- iv. Record-Keeping and Reporting:
  - A log of all inspections, maintenance, and monitoring results, to be retained for the life of the cell.
  - Reporting to Council's Monitoring Officer every two years, or immediately if any failure or exceedance is detected.
- v. Site Access and Security:
  - Measures to restrict unauthorised access to the encapsulation cell area and maintain security of the site

#### Site Specific Erosion and Sediment Control Plans (SSESCPs)

The SSESCPs shall be generated for the landfill area as identified in Appendix C – Site Specific Erosion and Sediment Control Plans in the Southern Skies Environmental Erosion and Sediment Control Assessment Report Maitahi Village. The areas that have identified requirements for SSESCPs are shown in the table below:

Reference number	Title	Revision	Date
ESCP-000-00	Erosion and Sediment Control Plan – Staging Index	Α	15.06.24
SSESCP-001	Site Specific Erosion and Sediment Control Plan – Stage 1	А	20.05.24
SSESCP-002	Site Specific Erosion and Sediment Control Plan – Stage 2	Α	23.05.24
SSESCP-003	Site Specific Erosion and Sediment Control Plan – Stage 3	Α	17.06.24
SSESCP-004	Site Specific Erosion and Sediment Control Plan – Stage 4	Α	09.07.24
SSESCP-SW-01	Site Specific Erosion and Sediment Control Plan – Kaka Stream Diversion	Α	26.05.24

- 14 The SSESCP may be amended at any time by the Consent Holder, however any amendments shall be submitted to Council's Team Leader Environmental Compliance for approval. If the amended SSESCP is approval, then it becomes the certified plan for the purposes of condition 15. Any amendments to the SSESCP shall be:
  - a. For the purposes of improving the measures outlined in the SSESCPs for achieving the CEMP purpose (see condition 16);
  - b. Consistent with the conditions of this resource consent; and
  - c. Prepared by a suitably qualified expert or experts.
- No less than 10 working days prior to the commencement of any site development works, in any of the areas covered by a SSESCP, the consent holder shall provide the SSESCP to Council's Team Leader Environmental Compliance for review.
- 16 Each SSESCP shall be generated with the following principles:
  - i) Emphasis will be given to the importance of erosion control at all sites to minimise the risk of sediment discharge. This will be achieved with structural (physical measures) and nonstructural (methodologies and construction staging) erosion control measures.
  - ii) Sediment control will be utilised to treat sediment-laden runoff from all exposed earthworks areas.
  - iii) Earthworks and construction water management measures will be confirmed in the SSESCPs which will allow for flexibility and practicality of approach to ESC and allow the ability to adapt appropriately to specific site conditions.
  - iv) Progressive and rapid stabilisation, both temporary and permanent, of disturbed areas using mulch, aggregate and geotextiles will be on-going during the earthworks phase. Temporary stabilisation will apply particularly with respect to stockpiles, ground improvement locations where topsoil is removed, concentrated flow paths and batter establishment. Stabilisation is designed for both erosion control and dust minimisation.
  - v) Streamworks and works in the vicinity of streams will be undertaken in a manner that recognises the higher risk of this activity from a sediment generation and discharge perspective, and the sensitivity of the receiving environments. Works within active stream channels will be undertaken in a "dry" environment by working off-line or diverting upstream flows.

- vi) Comprehensive site monitoring and management will allow for continuous improvement in response to monitoring outcomes on an ongoing basis. Monitoring will include visual inspection of the construction water management devices and the downstream environment.
- 17 Each SSESCP shall contain as a minimum, the following information:
  - i) the specific construction activity to be undertaken;
  - ii) the area of earthworks, and/or the nature of the stream works at specific locations, and
  - iii) identification of the downstream receiving environment;
  - iv) the locations of all earthworks and/or stream works;
  - v) methods for managing construction water effects for specific activities;
  - vi) the duration of the earthworks and/or stream works;
  - vii) the time of the year that the stream works are to be undertaken, and where applicable,
  - viii) the measures to be implemented to respond to any heightened weather risks at that
  - ix) time;
  - x) stabilisation methods and timing to reduce the open area at key locations to assist with
  - xi) a reduction in sediment generation;
  - xii) chemical treatment (flocculation) at SRPs and DEBs; and
  - xiii) the following details for dust management:
    - Identification of potential dust sources on the site;
    - Methods to suppress or control dust (e.g. use of water carts, chemical dust suppressants, stabilisation of exposed surfaces);
    - Monitoring procedures, including daily site inspections and weather condition assessments;
    - o Response procedures for dust complaints or exceedances;
    - o Identification of a site representative responsible for implementing the DMP.
- 18. The consent holder shall provide the SSESCP and the OMP no less than 20 working days prior to the commencement of any site works authorised under this consent. The purpose of this provision is to support iwi review, promote cultural and environmental oversight, and allow for any feedback on plan content before implementation.
  - a) The consent holder shall maintain a record of correspondence, including the dates the plans were provided and any feedback received.
  - b) In addition, the consent holder shall establish and maintain regular communication with Te Tauihu Iwi Pou Taiao for the duration of works.
  - c) Project updates shall be provided in writing at intervals of no more than six (6) weeks apart, starting from the date of site establishment.
  - d) These updates shall include (but not be limited to) the status of works, any incidents, environmental monitoring outcomes, and responses to iwi concerns.
  - e) All such correspondence shall be copied to the Nelson City Council Monitoring Officer, and a full record shall be retained by the consent holder and made available on request.

## <u>Dust Management – General Requirements</u>

19 The Consent Holder must undertake all earthworks in a manner that avoids, as far as practicable, the generation of visible dust beyond the boundary of the site. No visible dust must be discharged beyond the boundary that causes an offensive or objectionable effect.

- The Consent Holder shall implement all dust control measures specified in the certified SSESCVP throughout the duration of the earthworks.
- 21 The Consent Holder shall proactively monitor weather forecasts and implement additional dust suppression measures on days where dry and/or windy conditions are forecast, including:
  - Increasing the frequency or intensity of water application;
  - Temporarily suspending earthworks where effective dust suppression cannot be achieved.
- The Consent Holder shall ensure that any exposed earth surfaces that are not actively worked for more than 14 consecutive days are stabilised by means such as hydroseeding, mulching, or geotextiles to prevent dust emissions.
- The consent holder must maintain a complaints register for dust-related issues. The register must include:
  - The nature, date, and time of the complaint;
  - Weather conditions at the time of the complaint;
  - Actions taken in response. This register must be made available to Council upon request.

#### **Erosion and Sediment Control Monitoring Plan**

24 All earthworks on site shall be supervised and monitored by suitably qualified and experienced professionals in accordance with the Erosion and Sediment Control Monitoring Plan provided in Appendix B – Erosion and Sediment Control Monitoring Plan in the Southern Skies Environmental Erosion and Sediment Control Assessment Report Maitahi Village.

#### **Monitoring**

- 25. In the event of failure of a structural or erosion and sediment control measure, the Consent Holder shall notify Council's Monitoring Officer of the incident no later than 24 hours following the incident. The notification shall include, but not be limited to the following:
  - i. Time and date of the incident
  - ii. Details of the nature of the incident, including the cause, scale of the incident and any effects that the incident has imposed on the receiving environment.
  - iii. Any measures taken to prevent further effects.

# **Chemical Treatment Management Plan (CTMP)**

26 All chemical treatment and dosing of earthworked areas on site shall be designed, maintained, supervised and monitored by suitably qualified and experienced professionals in accordance with the Chemical Treatment Management Plan provided in Appendix A – Chemical Treatment Management Plan in the Southern Skies Environmental Erosion and Sediment Control Assessment Report Maitahi Village.

#### **Stormwater Control and Sediment Retention Ponds**

27. Sediment retention ponds shall be approved by a Geo-Professional in accordance with the ESCP and in accordance with either GD05 Auckland Erosion and Sediment Control Guide for Land Disturbance Activities or the Nelson Tasman Erosion and Sediment Control Guidelines 2019 otherwise referred to as 'best practice'.

#### **Ecological Testing**

28. Prior to any works commencing on site, the Consent Holder shall undertake eDNA testing in the reach of the Kākā Stream directly below the landfilling area to determine if any species of significance are present. The consent holder shall submit the testing results to Council within 3 days of receiving the results.

29. Where testing results (as required under condition 16) indicate that there are species of significance in the immediate Kākā Stream reach, the Consent Holder shall amend the ESCP to provide additional measures to ensure that these species are appropriately protected, and any potential adverse effects on them will be mitigated.

### **Riparian Buffer Management**

- 30. A minimum 10-metre vegetated and undisturbed buffer shall be maintained between all active fill or earthwork areas and the Kākā Stream at all times. No vegetation clearance, soil disturbance, machinery movement, refuelling or stockpiling of material shall occur within this buffer unless specifically approved in the ESCP and confirmed by a suitably qualified and experienced ecologist to result in no more than minor ecological effects.
- 31. Within three (3) months of the completion of earthworks, the Consent Holder shall submit an Native Planting Plan to Council's Monitoring Officer. The Plan shall be prepared by SQEP Ecologist and in consultation with the SQEP specialising in contaminated land and encapsulated cells. The Plan shall include, but not be limited to:
  - a) A site plan showing proposed planting areas;
  - b) A schedule of indigenous species (appropriate to the ecological context and whenua) to be planted, including planting densities and layout;
  - c) Details of any weed and pest control measures during establishment;
  - d) Maintenance programme including weed control, infill planting and performance targets for plant survival and cover over a minimum 5-year period;
  - e) Monitoring schedule and adaptive management triggers to address failures in plant establishment or unanticipated ecological effects.
- Planting and restoration shall be implemented in the first planting season following final landform completion unless otherwise agreed in writing by Council's Team Leader Environmental Compliance.

#### Machinery

- 33. Machinery and equipment shall not be cleaned within 10 metres of any open watercourse.
- 34. All machinery on the work site shall be refuelled at least 20 metres away from any open watercourse. Refuelling and maintenance work shall be undertaken in such a manner as to prevent contamination of land and surface water. If spillage of any contaminants into any watercourse or onto land occurs, this shall be adequately cleaned up so that no residual potential for contamination of land and surface water runoff from the site occurs. If a spill of more than 20 litres of fuel or other hazardous substances occurs, the Consent Holder shall immediately inform the Council's Monitoring Officer.

#### After construction - Geotechnical

- 35. Following the satisfactory completion of the earthworks, the Geo-Professional shall submit a completion report that provides a professional opinion that there is a low ongoing geotechnical risk associated with the completed works. This report shall also provide confirmation that the site has been appropriately stabilised.
- 36. Once the Geo-Professional has confirmed that the site has been stabilised, the erosion and sediment control measures detailed in condition 6 shall be removed and any sediment within the controls shall be disposed of in a manner that prevents the sediment from discharging into a watercourse prior to the control being removed.

#### After Construction - Encapsulation Cell Completion Certification

- 37. Following the completion of the encapsulation cell construction, a Suitably Qualified and Experienced Practitioner (SQEP) in contaminated land and in consultation with the geo-professional engineer, shall prepare and submit a Completion Report to Council's Monitoring Officer. The report shall include:
  - i. A statement confirming that all works have been carried out in accordance with the certified Remediation Action Plan (RAP) and the certified Encapsulation Cell Design Report;
  - ii. Confirmation that all contaminated soils placed within the cell met the approved Waste Acceptance Criteria (WAC) under Condition [insert WAC condition ref];
  - iii. Documentation and photographs of construction stages, including liner installation, capping system, and any drainage or marker layers; and
  - iv. A professional opinion that the encapsulation cell presents a low ongoing risk to human health and the environment, subject to implementation of the certified Long-Term Management and Maintenance Plan.

# After Construction - Encapsulation Cell Site Finalisation

- 38. Once the Completion Report has been received and accepted by the Council's Monitoring Officer, the Consent Holder shall:
  - i. Implement any final capping or surface stabilisation measures as specified in the RAP or Completion Report;
  - ii. Ensure that no further disturbance of the encapsulation cell occurs, except in accordance with the certified Long-Term Management and Maintenance Plan; and
  - iii. Install permanent physical markers or signage identifying the location and restricted nature of the encapsulation cell to the satisfaction of the Council's Monitoring Officer

## Review

- 39. For the purposes of, and pursuant to Section 128 of the Resource Management Act 1991, the Council reserves the right to review this consent's conditions annually commencing 12 months from the date this consent is granted, for any of the following purposes:
  - (a) To modify existing conditions of consent relating to the effects of the activity on the environment.
  - (b) To require the Consent Holder to adopt the best practicable option to reduce or remove any adverse effect upon the environment, arising from the generated effects of the activity.
  - (c) If the Council deems that it is necessary to do so in order to deal with any adverse effect on the environment which may arise from the exercise of this consent, and which is appropriate to deal with at a later date.