

ANNEXURE 1

Special Conditions

The following additional conditions shall form part of the overall consent to the Application and shall specifically attach to the indicated consents.

Special Condition 1: Assurance that GCL liner does not become excessively hydrated (CRC021914)

- A. *The applicant shall prepare a detailed Management Plan to control, manage and monitor the hydration level of the GCL liner so as to maintain it within the design standard.*
- B. *A suitably qualified geo-technical engineer shall inspect the edges and any exposed parts of the liner system, on at least an annual basis, and after weather events capable of causing surface water infiltration, in any situation where such infiltration has occurred and at the completion of each stage of filling. The geo-technical engineer shall provide an annual report to the consent holder, and the Regional Council and shall provide certification that the degree of hydration is within design limits and that in his or her view the degree of hydration does not result in any elevated risk of mass failure. The Management Plan shall outline the processes to be followed in the event that such certification cannot be provided. This shall include a process for deciding whether further development of the landfill can safely occur and for determining appropriate mitigation measures. (Copies of the management plan, report and certification are to be provided by the consent holder to the Regional Council and to the Peer Review Panel, within 7 days of completion of the document)*
- C. *In the event that the certification outlined above cannot be obtained at the end of any phase of filling, subsequent stages shall not proceed until redesign work demonstrates that a satisfactory level of stability can be assured and certified by the design engineer (such certification to be provided to the Peer Review Panel and the Regional Council).*

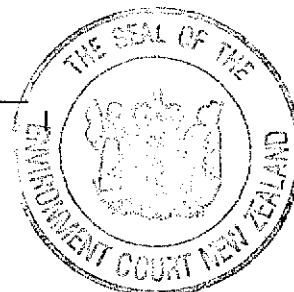
Special Condition 2: Removal of potential failure material upgradient of two major cuttings along northern access road (RC020069)

In the area upgradient of deep cuttings along the northern access road which will have its toe support removed, all soil material above the Tokama Formation (soft rock) shall be removed prior to excavation of the cuttings.

The lateral extent of the soil removal shall be defined by the points to the east and west of the cutting where the soil is undercut by the final excavation.

The upgradient extent of the soil removal shall be determined during the final investigation of this area (prior to final design) and shall be certified by the design engineer as having a factor of safety of at least 1.2 (see AEE). (A copy of such certification to be provided to the Peer Review Panel and to the Regional Council.)

Prior to excavation of the deep cutting into the Tokama Formation at these two locations, an investigation of the rock slope stability of these areas shall be carried out taking into account the unfavourable bedding at these locations.



The design engineer shall certify that the rock cuttings have a factor of safety (FOS) greater than 1.1 under both design groundwater conditions and design earthquake loadings. . (A copy of such certification to be provided to the Peer Review Panel and to the Regional Council.)

In the event that stability cannot be certified (FOS > 1.1) under "Design Earthquake Loading and Design Groundwater Levels" the potentially unstable rock mass shall be excavated to provide a stable batter over the life of the landfill and its extended after care period.

Special Condition 3: Removal of any potentially unstable rock mass above proposed silt pond (CRC021919)

Prior to construction of the Siltation Control Dam an investigation of the slopes adjoining the dam embankment footprint and the pond area shall be carried out to assess the long term stability of these batters.

All soil material above the northern side of the dam embankment and pond shall be removed to the ridge line.

The investigation shall determine the factor of safety against failure of the rock mass in this area under varying groundwater and seismic conditions.

The design engineer shall certify that the rock mass has an adequate factor of safety under design groundwater and seismic loadings.

If the investigation reveals that an adequate factor of safety cannot be achieved, all rock material above the critical potential failure plane shall be removed.

This investigation work shall take into account the results of the required detailed investigation of the proposed siltation dam and its foundations.

The design engineer shall prepare a report addressing each of the matters in this condition and that shall be provided to the Peer Review panel and to the Regional Council.

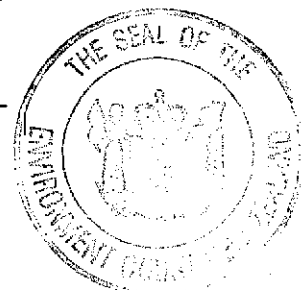
Special Condition 4: Surface water by-pass drains (CRC021919)

The proposed zigzag surface water drainage channels located around each of the landfill phases shall be modified/redesigned to have bends not less than 135° or other such configuration as a suitably qualified hydraulic/civil engineer will certify as being appropriate for the site conditions.

The selected hydraulic/civil engineer shall certify the configuration of such drains and any necessary special hard surfacing and shaping (cross section) as being sufficient and appropriate to prevent overflow of water into the waste mass (under all operational phases/conditions) under an ARI 100 storm event. (A copy of such certification to be provided to the Peer Review Panel and to the Regional Council.)

Special Condition 5: Dam safety guidelines (CRC021919)

Both the siltation control dam and the water storage dam shall be investigated and designed in accordance with the New Zealand Dam Safety Guidelines as



promulgated by the New Zealand Society on Large Dams (as agreed by the applicant).

The investigation, design, peer review and monitoring of the dam shall take into account the following factors:

- The public are known to frequent the lower end of Kate Valley and the beach at the Kate Creek outlet
- The potential incremental consequences of failure in terms of socio-economic, financial and environmental matters would cause major damages in that the landfill would likely need to be closed, requiring extensive rehabilitation work.

Special Condition 6: Retention of Kate Valley in consent holder's ownership (RC020069)

The entire Kate Valley catchment area presently held within the applicant's ownership shall remain in the consent holder's ownership for as long as the Kate Valley landfill is biologically active.

The biologically active life of the landfill shall be defined as the period over which LFG is being produced in concentrations exceeding 5% (v/v) in air or the concentrations of ammoniacal nitrogen or other leachate contaminants exceed levels that would protect 95% of species within the downstream data set of aquatic organisms.

Special Condition 7: Gross pollution control structures (RC020069)

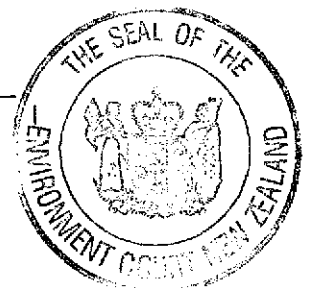
Gross pollution control (GPC) structures shall be erected at selected points along Kate Creek to intercept waste matter being carried towards the coast via this waterway. These GPC structures shall be regularly cleared of waste matter after storm events.

Special Condition 8: Protection of beech remnants (RC020069)

The landfill shall be redesigned so as to avoid earthworks in the location of beech Remnant A. Remnants A and B shall both be protected from any harm deriving from the construction or operation of the landfill. The consent holder shall also ensure that both Remnants are fenced off from stock and it shall control weeds and pests within those areas for the life of the landfill. Any redesign required by this condition shall ensure that the landfill footprint does not extend beyond the footprint shown in the application material, and the final finished height of the landfill shall be no higher than that shown in the application material. Any conditions in any of the consents that refer to plans or management plans shall be read as being subject to this condition.

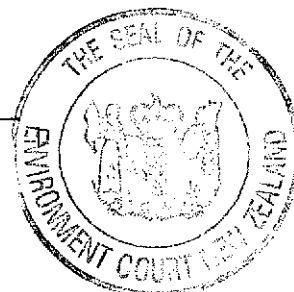
Special Condition 9: Financial contribution (RC020069)

Pursuant to section 409 of the Resource Management Act 1991, the consent holder shall pay a financial contribution, being 0.25% of the assessed value of the development, to the Hurunui District Council, prior to the commencement of the placement of refuse at the site. In the event, that beech Remnant A is not protected, the amount of this contribution shall increase to 0.4% of the assessed value of the development.



Special Condition 10: Restrictions on waste acceptance (CRC021913)

- A. No waste, other than **residual Municipal Solid Waste (MSW)**, shall be accepted for disposal. The definition of MSW shall be any non-hazardous, solid waste from a combination of domestic, commercial and industrial sources. It includes putrescible waste, garden waste, uncontaminated biosolids, and clinical and related waste (including contaminated waste sterilised to a standard acceptable to the Department of Health). It may include a small proportion of hazardous waste from households, and small commercial premises that is not detectable using standard screening procedures at either transfer stations or other waste reception facilities. Such quantities are small - generally <200 ml/t, or <200 g/tonne. It also includes site-generated process sludges in comparatively small quantities (e.g. LCS condensate, evaporator sludges, sludges from leachate treatment and sediment control facilities), and non-hazardous sludge wastes (e.g. wastewater treatment plant sludges) consistent with maintaining workable sludge/waste ratios for operations and stability purposes. The definition of "**residual**" shall mean that part of the municipal waste stream remaining, once all practicable and economic measures have been adopted to reduce, recover, reuse and or recycle material within the waste stream.
- B. From 1 January 2005, the Consent Holder shall only accept waste from transfer stations or other waste reception facilities that provide facilities for the separation of hazardous waste by users of the facility and which promote the merits of such separation to users.
- C. From 1 January 2008 the consent holder shall only accept waste (other than special waste) from transfer stations or other waste reception facilities that provide for and encourage the separation of green waste by users of the facility, and from that date, no loads of separated green waste shall be received at the landfill.



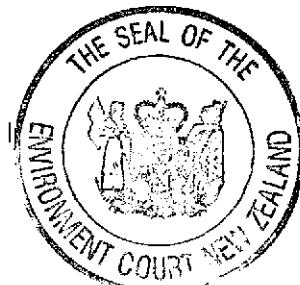
ANNEXURE 2

Applicant's proposed condition for Remnant B

The Consent Holder shall provide for the long-term protection and management of beech remnant B by:

- *The registration of a Covenant in a form to be approved by the Manager, Hurunui District Council, which provides legal protection in perpetuity of an area, the boundaries of which are to be agreed between the Consent Holder and Hurunui District Council and failing agreement specified by the Council, around beech Remnant B, of approximately 8 hectares in area;*
- *The permanent removal of grazing from the area so defined prior to commencement of first placement of waste within the landfill;*
- *Initiating and continuing weed and pest control within the area so defined during the operating life of the landfill;*
- *Carrying out beech and other native plant propagation and seedling transplant from Remnant A into the area so defined with appropriate support/buffer planting over the period until Remnant A is removed by landfill construction (approximately 10 years following commencement of the landfill); and*
- *Ongoing monitoring and management of native forest, including beech restoration within the area so defined, during the operating life of the landfill.*

Note: This condition does not form part of the consent but was the condition offered by the applicant on the basis that Remnant A was not to be protected. In our view, it should be included if the protection of Remnant A is not upheld.



**FURTHER CLARIFICATION SOUGHT FROM THE APPLICANT
RESULTING FROM SUBMISSIONS RECEIVED FROM MESSRS ORR,
HILL AND ASSOCIATE PROFESSOR DONALDSON.**

1. From dispersion modelling, (incorporating revised meteorological data if appropriate), indicate how the concentration of threshold and non-threshold contaminants (please nominate) would change with distance (show locations of maximum concentrations and increments under the worst meteorological and topographical conditions (this to include air drainage down valleys) for the Kate Valley locality. Relate these concentrations to acceptable health risk criteria.
2. Would the incorporation of long term local meteorological data into the dispersion estimates conducted by Dr Jones, or matters raised in Professor Donaldson's submission cause Dr Jones to alter the conclusion reached in his evidence relating to health risk assessment for the Kate Valley landfill?
3. Would reassessments resulting from above cause Dr Jones to alter his conclusions relating to location, frequency and intensity of odours to be expected from the proposed Kate Valley landfill?

